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HYDROBROMATE OF HYOSCINE IN DELIRIUM TREMENS.

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On February 13, 1896, a messenger came to my office saying that a patient whom I had seen in the morning, suffering from delirium tremens, had jumped through a window, carrying the sash with him, and had been captured with difficulty. Dr. Reginald K. Smith, of the U. S. S. "Philadelphia," who was present, said that in the navy they used hydrobromate of hyoscine for that class of cases.

I found the patient, a few minutes later, in a state of intense agitation, three men being required to keep him in bed. One-fiftieth of a grain of hydrobromate of hyoscine, administered hypodermically at 4 P. M., had a calmative effect in 15 minutes. At 6 P. M. he was given $\frac{1}{100}$ of a grain, at 8 P. M. $\frac{1}{100}$, and the same quantity thereafter every 4 hours. In the language of the nurse's record: "The new medicine worked like a charm; the patient slept like a child." Along with this quieting effect the patient lost all appetite for liquor of any kind.

Nine months have now passed; he is attending to his business and has had no return of his desire for drink. Before the attack he had for two years averaged 25 drinks a day. For three months following its first administration, he took $\frac{1}{100}$ grain of hyoscine at 8 o'clock every evening.

After hearing of my experience, two other Los Angeles practitioners gave it a trial, each on a Keeley-cured backslider, where morphine and whisky were getting their combined effect. In both instances the results were perfect. From a state of great agitation—in one it amounted to delirium—these two patients became quiet, obtained abundance of sleep, and lost all desire for alcohol and morphine. Three other acute alcoholics have come under my care during the last six months, and in each one the action of the hyoscine was satisfactory. In a patient who had violent cramps about an hour after I curetted her, following an abortion, the cramps affecting numerous muscles of the body, but principally those of the legs, massage, heat, enemas of hydrate of chloral, and $\frac{1}{4}$ grain of morphine hypodermically, were all tried without effect; $\frac{1}{100}$ grain of hyoscine was now given hypodermically and the patient became quiet in 5 minutes and was soon sleeping.

Shoemaker, in his "Materia Medica and Therapeutics," edition of 1896, says: Hydrobromate of hyoscine is of great value in recurrent mania and in chronic dementia with agitation and destructiveness. He mentions a case of great nervous excitement and insomnia, where the administration of $\frac{1}{80}$ of a grain was followed by several hours calm slumber, and that there was no ill effect from the drug upon the awakening of the patient. It is also recommended by him to allay the convulsions of cerebro-spinal meningitis, and as of value in checking spermatorrhea.

If further experience demonstrates that this drug usually destroys the desire for alcoholic drink, it will be given an important place in our therapeutics. It is possible that this is one of the drugs of the formerly popular Keeley cure, and that the withdrawal of the drug on the discharge of the patients caused the numerous relapses.

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THE TREATMENT OF PNEUMONIA.

By T. M. HAYDEN, M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

My object or reason in taking this subject for a paper at this time is twofold. In the first place, it is the great importance of this subject as viewed from the mortality records. If Asiatic cholera were to produce one-half the deaths in the city of New York or in the city of San Francisco, in any given month, as does pneumonia, the nation would be in a state of panic. Pneumonia leads in its rate of mortality even consumption. Certainly all records which I can find show that, at present, pneumonia has the largest fatality of any disease in this broad land of ours. Even diphtheria takes a low third place when compared with the destroyer pneumonia. These facts, which cannot be gainsaid, are of themselves sufficient justification for the time I shall consume in presenting ideas that are not original and that, perhaps, may not be new, but which I firmly believe should be more thoroughly impressed upon the minds of the profession generally.

My second reason is to enter a protest against the generally accepted ideas of the profession as to what constitutes pneumonia and what, in a measure, constitutes its proper management.

In the medical profession this is too much an age of "fads" and of thoughtless following after bacteriologists. To make myself clear it may be necessary to define pneumonia according to some of our so-called leading authorities. Osler tells us that it is an infectious disease, characterized by inflammation of the lungs and constitutional disturbance of varying intensity. He further says the diplococcus pneumoniæ of Fraenkel is the constant organism of lobar pneumonia, and is now believed, by many competent authorities, to be the specific cause of the disease. Regarding treatment, he tells us it is a self-limited disease, and runs its course uninfluenced in any way by medicine. Bartholow says, "It is a well-defined, self-limited disease, which passes through its different stages with considerable uniformity." H. A. Hare says, "The treatment of croupous pneumonia must necessarily be influenced by our opinion of its causation and pathology." This, I hold, is the true key to the whole situation. We need, in my opinion, to reconstruct or reorganize our ideas of causation, or more particularly of morbid anatomy as concerns this disease. If we accept the germ theory, that it is due to a specific germ, and that that germ invades the air cells and must of necessity run its course of development and extrusion, then the ideas of Osler and many of his followers would be rational ones. The experience, however, of every one practising medicine, on due reflection, must lead him to doubt this hypothesis of the self-limitation of the disease and of its microbic origin.

If this theory be correct, why are our methods of treatment so unsuccessful? and we must admit, as candid men, that the expectant plan is a falure. If not, why should there be one death in four at the close of the nineteenth century and only one death in ten the first third of the century, when pneumonia was treated actively? Why are we told to support the patient until the disease runs its course, when, perhaps, that patient is a strong man, full of vitality, full of nervous force, full of everything that makes life? Why are the strong and robust overwhelmed with the disease? Is it because of its asthenic nature or character? Do such patients die in five or six days of typhoid? Do they die in five or six days of empyema? Is it because of a hyperpyrexia that they so often sink in the first few days or even in the first 24 hours of a pneumonia?

Pepper says, "Exhaustion is due to the poison of bacteria." If so, what leucomaine is produced by this specific germ that kills so promptly? Theory may be pleasing, but it is not proof; neither is speculation evidence. The fact is, we forget our anatomy and fail to remember our physiology, without which we cannot appreciate the true pathology of these cases. Pneumonia is largely fatal in proportion to the amount of the lung involved, though this is denied by some authors; but, so far as I am concerned, I would much prefer, other things being equal, to treat single than double pneumonia.

Clinically there are many things that require explanation, if pneumonia is to be regarded as essentially of microbic origin. Why is it so common in the latter stages of exhausting diseases, in old age, and in connection with cardiac disorders? Why should it occur so often after fracture of the neck of the femur? Why should it so often accompany the eruptive diseases, as scarlet fever and measles? Why should a single lobe only be affected in the majority of cases, if the disease be due to a germ? Does the germ single out that particular lobe and multiply there to the exclusion of the other parts? Is there something in the lower right lobe which furnishes a better culture medium than the others? Why are not all lobes alike. There is a good reason why the germ of diphtheria should attack the fauces; but why should the germ of pneumonia be so irregular and erratic in its selection of soil, and why should it wait until all other conditions are favorable? Why should it wait until the patient is down from other disease and then jump on him? Why should the dipplococcus pneumoniæ be found in disease of the middle ear and in cerebro-spinal fever? Why should it be found normally in the secretions of the mouth?

Why can pneumonia be aborted or jugulated if it be a germ disease? Osler says that this disease runs its course uninfluenced in any way by medicine, and that it can neither be aborted nor cut short by any means at our command. This is a very strong declaration for any man of his reputation to make; a statement, moreover, which is opposed to the assertion of such men as the elder Flint, who says that pneumonia can be aborted and that they do abort it, and almost every man's experience confirms the latter view. Some of our best clinicians tell us that they are able to cut it short, not allowing it to run its course in as many as one-half their cases. If this be so, the germ theory, as applied to pneumonia, is manifestly lame, for no one expects or tries to abort measles or scarlet fever, which we regard as types of the specific self-limited germ diseases. Besides, pneumonia does not run the self-limited, well defined course of a specific disease; if so, why should the period of resolution or gray hepatization take place on the sixth day in some individuals, and be deferred to the end of two or three weeks in others? In measles we do not find the eruption appearing on the third or fourth day in one patient and on the twentieth or twenty-fifth day after the initial symptoms in another. Until some of these questions are answered satisfactorily, no one ought to hold such views, when on them is based an expectant or symptomatic line of practice.

Now what do we know that is entirely free from guess work and speculation? We know that we have a pulmonary organ of a spongy cellular tissue, susceptible to expansion by either gases or fluids. We know that in incipient pneumonia there is first a fluxion to the part, an active congestion, a complete engorgement of the invaded lobe. When this condition has supervened, the blood is dammed back in a varying degree on the right cavity of the heart. When the obstruction is increased this damming back process is transmitted to the venæ cavæ, superior and inferior, and in many cases the process passes back into the liver and other abdominal organs.

Now what is the consequence of this physical condition of the lung, pulmonary arteries, right heart, and venæ cavae? Manifestly a very greatly increased functional activity of the right heart which struggles to propel this enlarged and obstructed blood current, and, as a consequence, becomes overtaxed and is liable to have formed in its cavities the much dreaded heart clot of pneumonia. Moreover, the over-exertion and the over-taxation of the right heart is the cause of the heart failure in pneumonia, which, by all odds, is the principal cause of death in this disease. All our clinical experience tells us that here is the danger in the majority of cases, and it is here that death begins. It is not from failure of respiration, nor from disorganization of the blood. It is not from the circulation in the blood of some morbific agent, nor from a lack of ingestion, absorption, or assimilation of food, but from a physical dilatation of the right heart, causing its exhaustion and paralysis.

This much we know of the pathology of pneumonia. Whether this devastation was induced in the first place by microbes or by a debilitated condition of the pulmonary organs, conjoined with internal congestion of the lung, due to the sudden chilling of the superficies, it matters not. With an engorged lung and a laboring heart threatening the destruction of our patient, we should not tell him that this is a self-limited disease, and that if he can hold his head up long enough he will weather the blast and get well.

I maintain that the expectant or symptomatic plan of treatment has proven a snare and a failure; that it has not given the results obtained in the earlier years of this century when pneumonia was treated actively by blood letting and tartar emetic. This is proved by statistics, if statistics ever prove anything, from the records of the Massachusetts General Hospital, where the death rate of to-day from pneumonia is more than double what it was under the old blood letting regime. Some have sought to explain the difference by asserting that we have more intemperance and more debilitated patients than our medical forefathers had; but intemperance, so far as alcohol is concerned, was perhaps more rife then than it is now. Another fact that would rebut this contention is that longevity has increased very materially, and we may assume that with this increased longevity there should be an increased vital force and vigor of the race, consequently with a better class of patients to deal with we allow more of them to die than did the medical men of the first third of the century.

With a patient suffering from the pathological conditions outlined above, what are the rational indications for treatment? Manifestly to remove the obstruction, to relieve the over-distension of the right heart, and to abate the fever. And how shall we accomplish this? By revulsion from and depletion of the engorged pulmonary and cardiac area. If we remove the obstruction the heart will soon regain its normal activity, and while we cannot do this entirely, we can do so in a great measure. We can deplete through the general and cutaneous venous systems, which will relieve the over-taxation of the right heart, and to some degree remove pulmonary obstruction. By doing these two things promptly we conserve the energy and strength of the right heart, and thereby save the life of the patient. It will not be necessary to support the patient generally, as we are taught to do and leave him, or rather his right heart, alone to fight its battle.

To relieve the general venous congestion, not only of the lung, but of the heart and systemic veins, there is nothing so prompt and efficient as venesection. But not all cases require venesection. As Hartshorne, of Philadelphia, said 25 years ago: "Two consecutive patients might recover without venesection, and the third may die from lack of it; we must use our judgment, and upon our skill will many times depend the life of the patient." I feel convinced that the theory of expectancy has cost me more than one patient, that in all probability venesection would have saved.

In many cases, if seen early, active diaphoresis fulfils the indications of revulsion and depletion, for by this measure the cutaneous system is engorged with blood to the relief of the congested internal organs, and the activity of the sudoriparous glands gives us the required depletion and elimination. By this means we very materially unload the congested lung and thereby remove obstruction to the blood current, and if hepatization has taken place, promote the retrograde changes in and the absorption from the air cells of effused material. It also depletes the general venous system and thereby relieves the right heart in the other direction.

Drugs in themselves play perhaps only a minor part, especially in the treatment of the earlier stages of pneumonia. The application of external heat, more or less moisture, in fact a vapor bath, and the imbibition of diaphoretic drinks will be of the first importance. If the case be seen early and is very urgent, and if there be no history of an impaired heart, some of the coal tar derivatives might be brought to our assistance. They are, however, treacherous, and their use must be guarded and limited by the experience and judgment of the medical attendant.

Dover's powder is not, in my judgment, a safe remedy in many cases, because of the obtunding effect of the opium, though the diaphoretic action would probably be very desirable. The hypodermic injection of morphine, as advised by some authorities, to quell the pain in grave cases, is, I think, a most pernicious practice. Veratrum is an unscientific remedy; so is digitalis, especially when given in the early stages. It is unscientific, for the reason that it is an attempt to compel the heart to do work notwithstanding its protest of inability. It is more scientific to remove the obstruction to the circulation when the heart will not ask assistance from such stimulants.

Aconite, if given with great care and under a skilful nurse, is perhaps a more rational remedy because of its effect upon the skin. Poultices will hardly be needed if thorough general diaphoresis be produced. Poultices, if constantly used, may become detrimental by softening the subjacent skin and tissues; they are also inconvenient and necessitate more or less exposure of the surface which may be annoying and detrimental to the patient. Mercurials in purgative doses, or combined with purgatives, are of undoubted benefit in relieving portal engorgment, and will generally be required. Strychnine in the latter stages is almost certain to be of great benefit. The carbonate and muriate of ammonia in small doses, frequently repeated, are of great benefit as they moisten the skin, promote expectoration, liquefy the fibrinous formations, and are excellent cardiac stimulants. Iodide of ammonium or of potassium is of great benefit if resolution be tedious or slow.

The diaphoresis is not dangerous, and I have never observed it to result in collapse. A weakness from sweating of this kind is a depression from which recovery is very rapid, and is surely less serious than a weakness from fever or from an obstructed pulmonary circulation. If, notwithstanding this diaphoretic treatment in any case, cyanosis should develop on the fifth or sixth day, be the patient robust or weak, I should advise venesection as a temporary relief to the over-burdened right heart. This should be followed by liberal alcoholic stimulantion; for if this condition persist, and if the circulation be not restored, a fatal result is inevitable.

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ASEPTOLIN.

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Read before the California Northern District Medical Society.

Having little time and less desire to theorize on this agent so recently introduced to the medical profession, I beg leave to simply present a few cases in which I have used it, together with the methods of employing it, and the results that have followed.

In all of the cases it was administered hypodermically, using a syringe made especially for the purpose, and holding two drachms. The needle was a small one, and, according to the directions sent with each bottle, I injected the solution well under the skin of the abdomen. Each and every injection was very painful, being followed by a burning sensation of several minutes' duration. The superficial injections were followed by inflammation of the skin and superficial tissues, which, in the course of two or three days, would terminate in a breaking down of those tissues, forming a small cavity filled with pus. To overcome this, I injected the solution into the muscular tissues, which, in the majority of cases, was not followed by any local ill effects.

The diet in each case was carefully looked after and the tonic treatment administered as prescribed in the circular. The urine of each case was closely watched for albumin, but there was no indication of it in any of them. The temperature of each patient was closely followed and carefully tabulated, but for the sake of brevity I will only give one daily observation, that at 3 P. M. The treatment was tried on 8 cases, which I will now briefly report:

CASE I.—G. M. A——, male, age 33 years; a coal miner; was admitted to the hospital May 1, 1896. He was very much emaciated, expectoration mixed with blood, loss of appetite, weight 115 pounds. His temperature was 101° F., pulse 96. I commenced treatment by giving an injection of 50 m., which is the minimum dose recommended, and increased this 5 to 10 m. daily until the tenth day, at which time the temperature was 99°, the pulse 74, and the weight 100 pounds. At this date he was given 135 m. In addition to the injections, ergot was prescribed internally to check the expectoration of blood. On the eleventh day, the temperature was 100.5° and on the twelfth 99°. On this date he was given 150 m., and had lost 18 pounds in weight; his appetite had improved but little, and he refused further treatment, leaving hospital soon after.

CASE II.—P. R. J——, male, aged 54 years; painter; entered the hospital January 3, 1896. The first symptoms of disease noticed by him were in June, 1894. His weight at that time was 170 pounds. At the beginning of treatment, on May 26, 1896, it was 134 pounds; he had a hard cough, profuse expectoration, night sweats, and loss of appetite; temperature 101.5°; pulse 108. I commenced treatment with 50 m. and gradually increased the dose until the tenth day, at which time he was given 110 m.; his temperature was 102°; weight 122 pounds. On the twentieth day he was given 150 m.; temperature 101°, pulse 110. At this time he was too weak to leave his bed. On the thirtieth day he was given 220 m., his temperature was 101°, pulse 115. On the thirty-third day the maximum dose of 250 m. was given, and was continued for 4 days and then stopped. He died 3 days later.

CASE III.—C. G——, male, age 59 years; laborer; entered the hospital April 9, 1895, commenced treatment June 4, 1896. He was suffering with a dry cough, poor appetite, and general weakness, but was able to work around the buildings and to take considerable exercise. At the beginning of treatment his weight was 125 pounds, temperature normal, pulse 80. I commenced with an injection of 50 m., giving him on the tenth day 110 m., and on the twentieth day 200 m. His weight at this time was 106 pounds, he having lost 19 pounds. On the twenty-sixth day I gave him the maximum dose of 250 m. His temperature never went above 99°; his pulse ranged from 80 to 100. On the twenty-eighth day the dose was reduced to 100 m. and continued for ten days, at the end of which time I discontinued the treatment, his weight being 110 pounds. Eight days after that, or on July 19th, he was taken with a hemorrhage from the lungs, which continued for two or three days. He is still alive and around as usual; present weight 112 pounds.

CASE IV.—C. J——, male, age 34 years; laborer; entered the hospital June 16, 1896; weight in health 165 pounds; left lung badly affected; night sweats, severe cough, and profuse expectoration. I gave him injections on June 16th and 17th. On the 18th he told me that he had taken the treatment for 6 weeks at the City and County Hospital, San Francisco, and had grown worse during that time. I had no reason to doubt him, as the marks made by the needle still showed on the abdomen. He is still living.

CASE V.—P. L——, male, age 60 years; laborer; admitted June 7, 1896. This was a very severe case, and I did not commence treatment until June 16th, at which time his temperature was 100.5°. I commenced as usual with 50 m.; on the 17th his temperature was 103°, on the 26th 102°, and on the 28th 100°. At this time he was given 150 m. On the 29th, or the fourteenth day, I discontinued the treatment, as the expectoration was very profuse and patient very low On the second day following he died.

CASE VI.—P. T——, male, age 26 years; admitted July 1, 1896. Temperature 102°, pulse 114. He had a hard cough with expectoration mixed with blood. He had been failing in health for one year. I commenced with 60 m. and increased the dose 10 m. daily. On the third day he was slightly delirious; temperature 103°, pulse 120. On the seventh day he had a hemorrhage and died soon after.

CASE VII.—J. C——, female, age 45 years; admitted July 1, 1896. Emaciated, loss of appetite, dry hacking cough with slight expectoration. Temperature 99°, pulse 84. I commenced with 60 m. and continued the treatment for 21 days, gradually increasing the dose to 120 m. Each injection was given under protest, as she complained bitterly of the pain experienced, crying for 10 or 15 minutes after every injection. At the end of 21 days she refused to take further treatment, and not seeing any improvement in her general health, it was discontinued. She is still with us and in about the same condition of health as when admitted.

CASE VIII.—J. C——, male, age 36 years; admitted to the hospital July 6, 1896. Had been failing in health for one year. Has night sweats, a hard cough, and loss of appetite. Treatment was commenced July 8th. His temperature was 100.5°; weight 122 pounds. I gave him an injection of 60 m. On the second day of treatment his temperature was 103°, and on the third 104°. I increased the dose of aseptolin 10 m. daily until the tenth day, when his temperature was 103.3°, and his weight 118 pounds. I continued to increase the dose 10 m. daily until the twenty-first day of the treatment, at which time I had reached the maximum amount. His temperature was then 102°; his hands and feet were badly swollen, and he was unable to leave his bed. The injections were stopped. He continued to fail, and died September 15, 1896.

The results in all of the 8 cases were entirely unsatisfactory. There was no perceptible improvement in any individual case. There was plenty of opportunity to apply the treatment in cases admitted after those already referred to, but as the injections were painful, and as no material benefit had been derived by those already treated, I discontinued the use of the remedy.

FRACTURES OF THE SKULL.

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Fractures of the skull are of special interest to the surgeon because of the serious complications present in many cases, due to the accompanying injury of the brain and its membranes. These complications, if promptly and skillfully treated, redound to the credit of operative surgery, but when neglected or treated upon the expectant plan are almost invariably followed by the death of the patient.

No injury of the head, however slight to outward appearances, should fail to receive the closest scrutiny. A hidden fracture that remains undiscovered may not *immediately* give rise to serious symptoms, but at a *subsequent* period, when operative interference may prove to be too late to effect a cure.

Of the varieties of skull fracture the simple or fissured may be linear or stellate, and may or may not be accompanied by a scalp wound. In some persons the skull is extremely thin, and therefore readily fractured by light blows upon the head. In some cases there are no symptoms beyond that of slight shock on receipt of the injury.

Fractures of the base of the skull frequently involving a large venous sinus are usually fatal, although a few cases have recovered. When the lesion involves the anterior fossa it is shown by hemorrhage into the orbit and upper eyelid, also by bleeding from the nose. When the middle fossa is fractured, there is generally hemorrhage and escape of cephalo-rachidian fluid from the ear, the line of fracture in such a case extending through the petrous portion of the temporal bone. A fracture through the posterior fossa may be suspected from severe symptoms of compression.

In the frontal bone over the frontal sinuses, in the mastoid process of the temporal bone, and very rarely in other portions of the skull, the external table may be depressed without injury to the inner. Usually both tables are broken, the inner being the most extensively shattered.

"Teevan's experiments seem to show that when the skull is struck and the bone yields, it gives way first on the side of extension (the concave side), and while the outer table from its elasticity and its more solid support, regains nearly or quite its normal level, the internal table does not, but remains in its fractured condition about at the level of its greatest depression."

Rare cases have presented the inner table fractured and depressed when no fracture of the external table has occurred.

In children the two tables are merged into one, and the bone being soft it has been found depressed even when not apparently fractured.

As a complication of depressed fracture involving the inner or both tables, we have pressure upon the brain from the depressed bone, also, in a large percentage of cases, laceration of the membranes and of the brain itself. Again, any injured vessel will be a source of hemorrhage, causing pressure upon the encephalon.

Punctured fractures, as from sharp or pointed instruments or bullets, are most extensively comminuted, fragments of bone being carried deeply into the brain, which is lacerated and disorganized.

From bullet perforations, the opening of entrance shows the greatest comminution of the inner table, while at the opening of exit the reverse holds good.

The symptoms of fracture may vary in degree, from shock, which in an uncomplicated fracture may not be severe, to the most profound coma. Our chief knowledge in all compound fractures is obtained from direct examination of the seat of injury, and in such cases the diagnosis is ordinarily simple. Exceptions are found in simple fissure where the margins are not perceptibly separated. One such case was diagnosed only after the discovery of a few hairs clasped tightly in the fissure by the closely opposed surfaces of the broken bone.

"An infallible test is to wipe away any lines of coagulated blood on the surface of the skull. If there is a fracture or a separated suture the blood within it cannot be thus removed. If, however, the lines of blood are adherent to the pericranium they can be easily cleared away in this manner." (Nancrede.)

This test, doubtless, according to Nancrede, is founded on the teachings of Hippocrates, who advised the use of a black ointment to be smeared over the exposed skull surface to detect a fissure, which would retain its coloring when the surrounding surface became cleansed.

How are we to clear up all doubt as to the extent of the injury when in the case of a hard blow upon the head, the history of the symptoms following is not satisfactory, the scalp presents no wound, and palpation is negative because of the swollen tissues or of a hematoma? In such a doubtful condition it would appear to be the duty of the surgeon to make an exploratory incision down to the bone, which can then be carefully examined, thus arriving at a positive knowledge of the extent of injury to the external table. In these days, an exploratory incision is not to be regarded as to any extent adding to the original lesion, and it can be made with perfect safety.

Where symptoms of compression follow immediately after the receipt of the injury and no fracture can be discovered, we may suspect a fracture, with hemorrhage, at the base. Where such symptoms develop more gradually, there being perhaps an interval of semi-consciousness before the supervention of coma, it is probable that the middle meningeal artery has been torn across producing an intracranial hematoma. Edwards, of Edinburgh, reports a case of fatal hemorrhage from such a complication, the artery being lacerated by a splinter from the internal table.

Having diagnosed a fracture, what we have to fear is: (1) Fatal compression of the brain from depressed bone, or from meningeal or cerebral hemorrhage. (2) Meningitis, from irritation or wounding of the membranes by bony spiculæ or fragments; and more remotely, chronic cerebral irritation, epilepsy or insanity. (3) Encephalitis from laceration and infection of the brain itself.

If the brain is greatly injured, we may have so severe a brain inflammation that all treatment is futile in preventing a fatal termination. The prognosis in all these complications depends upon the most active interference, and the ability of the surgeon to relieve the causes and conditions existing.

In considering the treatment, we must first remove all sources of irritation to the patient and place him upon an antiphlogistic plan of treatment, to prevent, if possible, any complications due to inflammation or infection.

In simple fracture the most prominent question for decision is the extent of damage to the vitreous table. Usually, without first determining this point, patients are treated on the expectant plan, waiting for cerebral symptoms to develop before resorting to the trephine. In simple fissured fractures very often the inner table is badly shattered and depressed; it therefore becomes a necessity, according to some authorities, to make an exploratory opening in the skull rather than incur the great risk of future dangerous complications.

Dr. Dugan, of Louisville, states: "So thoroughly am I convinced of the wisdom of exploratory craniectomy, of our utter inability to judge the condition of the deeper parts of the fracture by that which we see on the surface; of the great danger attending all cases where the fragments of the internal table are forced down on the brain; of the ease and safety with which these operations are done, that if I were the victim of such an injury I would request that the skull be opened."

Other indications for craniectomy as given by Sands, are: "(1) where symptoms indicate that a splinter of bone has penetrated the brain. (2) Compression caused by extravasation of blood between the cranium and the dura mater as from a wound of a venous sinus or of the middle meningeal artery. Such accident may be met with even when no fracture is present. Hemiplegia sometimes occurs before insensibility is complete, and its detection is important for the reason that a blow on one side of the head has been known to cause rupture of the artery on the opposite side."

Parker had such a case, and trephined over the artery, but not finding any clot, opened the skull on the opposite side where a very large blood clot was discovered.

Depressed fractures in small children may be raised by the application of a cupping-glass, using a wall of putty if the surface is uneven, and then making strong traction.

In all other cases we should elevate the bone, and perforate the skull to enable us to do so whenever necessary. All loose fragments and splinters are to be sought for and removed, all rough edges made smooth, hemorrhage controlled, wounds in the dura mater sutured, and the external wound closed.

Agnew advises the trephining and elevation of all depressed fractures irrespective of symptoms, in view of the severe after effects if left without operation.

In punctured fractures it is the fixed rule to trephine at once, removing the punctured portion of the bone if it be small. When the membranes and brain are lacerated, a careful search of the wound tract must be made for the removal of all splinters of bone and foreign bodies.

If a bullet be imbedded in the brain it will probably be found nearly directly opposite the point of entrance. The course of the channel in the brain indicates the direction, and the bullet may be sought for by trephining at such a point.

Fractures of the base are rarely amenable to treatment. Dr. Watson, of Boston, trephined a fracture at the vertex which was fissured to and across the orbital plate, with active hemorrhage. He cut a channel with a rongeur from the trephine opening to the external angular process of the frontal bone, exposing a large clot extending to the sella turcica. Hemorrhage was violent from the cavernous sinus, which, however, he succeeded in controlling by packing with gauze, and by his bold operation cured a case which appeared to be hopeless.

Regarding *technique*, the curved incision of the scalp is preferred to the crucial, as affording a freer field of operation. In perforating the skull, the trephine, chisel or revolving saw is used. With chisel and mallet only light blows may be struck, as hard blows have caused subdural hemorrhages.

A combined scalp and bone flap of the horseshoe form may be raised by the saw and chisel, the bony flap being forcibly broken across its base. The line of section by the saw is beveled at the expense of the external table to prevent the flap when replaced from pressing upon the brain.

In most cases of fracture, the trephine and rongeur will prove the most serviceable. On reaching the diploe with the trephine, the external plate can first be removed (as in cases of exploration) to permit an inspection of the internal table, thus determining without opening into the brain cavity whether or not there be depression. Fragments and splinters when removed can be matched together, to judge if all the pieces have been extracted.

As to antiseptics, Adamkiewicz learned by experiment upon animals that the brain is very susceptible to inflammation from contact with solutions of bichloride and of carbolic acid, but that a three per cent. solution of boric acid was harmless.

Hemorrhage can best be controlled by packing with gauze, which if thought necessary, may be left in an aseptic wound for ten days. Some operators use hot water as a styptic. A troublesome vessel in the diploe may be closed with wax or with a wooden plug. Any bleeding vessel which can be seized should be ligated with catgut. A bleeding sinus must be sutured or compressed by gauze. All clots must be carefully wiped away and the wound made as dry as possible, when it may be closed.

When gauze is left within the cranium the free end must be brought to the surface as a drain, and to admit of its easy removal.

The closure of the bone opening by a metal or celluloid plate is not necessary, and in some instances it has been accompanied by suppuration. When undertaken, it is best to be done at a subsequent operation. Horsley finds no inconvenience resulting from large skull openings.

REMOVAL OF A TUBO-OVARIAN ABSCESS, OVARIAN CYST AND TUBE BY ENUCLEATION, WITHOUT LIGATURE, CLAMP OR CAUTERY.

By J. Coplin Stinson, M.D., San Francisco, Cal.

Read before the San Francisco County Medical Society.

The history and treatment of the following case is of some interest as there were numerous adhesions of the uterus and adnexa to the surrounding viscera, and as the appendages were removed by enucleation without ligature or cautery:

Mrs. R. C——, aged 40; two living children; had always enjoyed fairly good health up to a few years ago, when she began to run down in flesh, became pale, slightly anemic, and inclined to be nervous. There was pain in the lower part of the abdomen, considerable vaginal discharge, the bowels very constipated. She was given the rest cure with massage for a while, but she could not be kept in bed. In the last two years had had two attacks of peritonitis. At times she has slight chills and fever. She has frequently been confined to bed for a day or so. A few months ago she noticed a swelling in the lower part of the abdomen, for which she consulted Dr. G. Gross, who made a diagnosis of pyosalpinx, and advised that an operation be performed.

On examination I found endometritis, the uterus in normal position and moderately movable, and a mass occupying the left side of the pelvis and extending to the side of the uterus. The right tube and ovary could not be thoroughly examined. It could be made out that the ovary was enlarged and tender to the touch. Diagnosis: endometritis, left pyosalpinx with adhesions, right ovary enlarged and adherent.

November 11, 1896, assisted by Drs. Gross and Perrone, I operated under chloroform, administered by the drop method. The patient was first placed in the lithotomy position, the cervix dilated, the uterus curetted, and carbolic acid and iodine 1:4 applied. The cervix was again dilated and the uterus irrigated with boiled water. She was then placed on the back, with the legs extended, and an incision about 3 inches long made above the pubes, dividing slightly to one side of the median line the skin, subcutaneous tissues, fascia, rectus, and peritoneum.

On introducing the fingers the omentum and intestines were found adherent to the appendages and the fundus uteri. On account of the extensive adhesions and the size of the masses it was found necessary to enlarge the incision slightly, making it 3¾ inches in length. The fundus uteri could not be felt, so the adhesions on the left side of the pelvis were separated with the fingers until the mass on this side could be partially made out. During the separation of adhesions the mass ruptured and about half a pint of creamy chocolate-colored fluid escaped. Pitcherful after pitcherful of hot water was immediately poured into the abdominal cavity until the fluid came away clear. Carefully working toward the uterus and separating the adhesions the fundus was soon exposed. The left mass was enucleated, beginning at its outer extremity. The blunt dissection, aided at times by the scalpel, was carried as close as possible to the mass (a tubo-ovarian abscess). The enucleation was carried as far inward as the uterus, from which the mass was removed by dissection, flush with that organ. The pedicle was not tied, but was removed by enucleation. No ligature, clamps, or cautery were used, as there was no bleeding.

The adhesions behind the fundus were separated excepting those deep down in the pelvis. The right ovary was next sought for, and was found buried in adhesions. The fallopian tube was apparently normal. The ovary, which contained a cyst, the size of a mandarin orange, was separated from the adhesions and the surroundings, and with the fallopian tube was enucleated, using blunt dissection, aided by the scalpel. When the uterine end of the tube was reached the serosa of the tube, about one quarter of an inch from the uterine corona, was divided in a circle and dissected back to the uterus. The tube was then cut off at the tubo-uterine junction, and the cut edges of the serosa which had been dissected back were united by a continuous catgut suture. The oozing from the adhesion was arrested by the hot water irrigation and sponge pressure. A couple of tears on the uterine fundus were then closed with continuous catgut sutures.

Two narrow gauze wicks were carried down into the *cul-de-sac*, and the ends brought out through the lower angle of the abdominal incision. The omentum was drawn down and spread over the intestines. The cut edges of the peritoneum were united with a continuous fine chromicized catgut suture. The divided rectus and the fascia by a continuous chromicized tendon suture. For the nice approximation of the fascia a layer of fine chromicized catgut sutures was also introduced. The skin was sutured with fine silk; only sufficient room was left at the lower angle for the passage of the gauze wicks. The uterus was not removed, as it was in good position and had been curetted.

The dressings consisted of moist bichloride of mercury gauze held in place by long adhesive strips, then absorbent cotton and a binder. The dressings were changed as often as they became saturated, or about every 3 hours for the first 24 hours; every 4 hours the first day after the operation; every 6 hours on the second day, and twice on the third. The gauze wicks were shortened on the third day. The remaining portions, except a short piece, were removed on the fourth day, and on the morning of the fifth this piece was withdrawn. A narrow strip of moist gauze was introduced for a short distance, and the edges of the small cavity allowed to fall together. The highest temperature (rectal) was 101° F. The patient made a satisfactory recovery. The wound healed by primary union. The silk stitches were removed on the seventh day.

From a study of this case, and of others[1] upon which I have operated,[2] or assisted in operating upon, I have drawn the following conclusions:

1. The appendages, etc., even when the seat of very extensive adhesions can be removed by enucleation.

2. Enucleation is the safest and simplest method for the removal of a cyst or tumor, etc., of the ovary, tube, or uterus. There is no

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[1] A combined vagino-abdominal method of hysterectomy, with ligation of vessels only.—Medical Record, July 20, 1895.

[2] Retroposed uteri, a report of 76 operative cases.—Therapeutic Gazette, May, 1896.

danger of hemorrhage. If a vessel is severed it can be caught at once and ligated with an absorbable ligature.

3. The pedicle of an ovarian, uterine, or other cyst, tumor, etc., should not be transfixed or tied off in sections, but should be cut across and only the individual vessels ligated. This does away with mass, non-absorbable and dead ligatures, sloughing and painful stumps, pelvic exudates, the cautery, wandering ligatures, adhesions, etc.

4. With enucleation there is less danger of injuring adjacent viscera; recovery is rapid, and the danger of sepsis is reduced to the minimum.

5. When a fallopian tube is removed, this should be done completely. No stump should be left. When the serosa of the tube at the tubo-uterine junction is not totally destroyed it should be divided in a circle about one quarter of an inch from the uterine corona, dissected back to the uterus and the cut edges of the serous coat, after removal of the tube, united by a continuous absorbable suture.

6. In removing an appendage by enucleation, the cut edges of the broad ligament should be united with a continuous absorbable suture.

7. Even when both appendages are removed, a uterus that is in good position and not irreparably damaged should be allowed to remain.

8. It must not be forgotten that at times enucleation with ligation of vessels only is difficult, *e. g.*, when the pedicles are short, deeply located in the pelvis, and cannot be easily controlled; when the broad ligaments retract quickly; when the operator cannot or does not wish to keep close to the tumor; when the broad ligaments are thickened and very vascular; when the organs are fixed by adhesions, and in most cases when the uterus is removed either by the vaginal, abdominal, or combined vagino-abdominal method of enucleation.[3]

Under these circumstances the operator should first separate the adhesions when present, then enucleate the mass so as to expose the pedicle which is clamped. The pedicle is then cut across between the tumor and the clamps; make moderate traction on the pedicle, using the clamps as a lever and traction, and to bring the severed pedicle well to the surface so as to inspect the stump for open mouths of vessels which are then ligated separately with absorbable ligatures. Remove the clamps, first applying small forceps at the upper and lower angles of the pedicle to control the stump, and if it has a serous coat bring the cut edges together over it with a continuous absorbable suture, so that no raw surfaces will be left to form adhesions. The clamps are, under these circumstances, an addition to the enucleation method, and when applied to the pedicles act temporarily as a prophylactic against hemorrhage, while the individual vessels are ligated; at the same time using them as levers and tractors the pedicle is easily controlled, the stump inspected, and the vessels located and ligated.

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[3] Medical Record, July, 1895.

326 Kearny street.

BACKWARD DISPLACEMENTS OF THE UTERUS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal.

Read before the California Northern District Medical Society.

The treatment of backward displacement of the uterus is quite as indeterminate as it was when I first fitted a pessary a quarter of a century ago. Even the cursory student of gynecology would infer that since that time all things have been tried, at least all things surgical. But progress is not made by trying all things, unless at the same time we hold fast that which is good. And this is too much the spirit of modern surgery, particularly of modern gynecological surgery, not to do. Ingenuity is taxed to the uttermost, but judgment too often lies fallow. In consequence we have a gynecological confusion of tongues; ventro-fixation is enthusiastically advocated by some and as severely condemned by others; so with ventro-suspension and vaginal fixation in its various modifications; so also with reefing the round ligaments, whether intra or extra-peritoneal, by the vagina or the abdomen; so even with pessaries. Unanimity might seem to be reached in regard to plastic operations; not so, however, for they are considered by some as the sole, by others as the chief, and by others still as subsidiary, procedures.

But confusion reigns not alone in regard to treatment. The pathological significance of backward displacements is positively affirmed by some and as positively denied by others, while of the latter, some, quite consistently it would seem, advise non-intervention, and others, *mirabile dictu*, counsel the most radical surgical procedures. In the midst of this Babel of the specialists, this "confusion worse confounded," the general practitioner may well escape censure if he permit his patients to bear the ills they have rather than fly to those they know not of.

It will be well for womankind, no less than for the medical profession, to return to the Hippocratic conception of the physician as a naturalist—the patient observer and interpreter of nature, for certainly not all of these various and contradictory opinions and methods have their foundation in facts intelligently and adequately observed and rationally interpreted. The tendency is assuredly, and must be more and more, to return to this conception as higher preliminary requirements and normal methods of education are more rigidly enforced by our medical schools. Before this consummation so devoutly to be wished, from the prevailing chaos, let us extract a few facts and principles, at least, for provisional guidance.

In the first place, backward displacements of the uterus are clearly pathological, as will appear from the following reasons:

1. By the coincidence of the uterine and vaginal axes produced by such displacements, the support of the pelvic floor is greatly impaired.
2. The downward intra-abdominal pressure acts on an abnormally extensive surface of the uterus.
3. This is not resisted by the anterior wall of the pelvis.
4. Immensely greater strain is thus put on the uterine ligaments.
5. Whether adherent or not, the uterus loses its normal mobility.
6. Both lymphatic and sanguineous circulation are impaired by pressure and torsion.
7. The displaced fundus mechanically impedes the rectal circulation and the fecal movement, and thus tends to piles and constipation, with their attendant evils. Independently of constipation, it increases the expulsive force necessary to empty the lower bowel and thus favors further backward displacement and prolapse.
8. The uterine secretions stagnate in the dorsal, and, in extreme cases, also in the erect, position.
9. In chronic backward displacement suffering is rarely absent; in acute and subacute cases it is always considerable and often severe.
10. Very few cases, even when free from complications, are without symptoms.

Thus we see that backward displacements are not only pathological in and of themselves, but are also important factors in the production of other pathological conditions, such as uterine prolapse, metritis and endometritis, abortion, cystocele, rectocele, constipation, and hemorrhoids. If backward displacements of the uterus, as some assert, have no pathological significance, it would be difficult, indeed, to find any excuse whatever for the existence of the gynecologist.

The causation of backward displacements of the uterus is not obscure. They are occasionally, though rarely congenital. Hereditary influences, no doubt, prevail in this way, but to a limited degree only, for by failure of reproduction they tend inevitably to correct themselves. More often, probably, this faulty or imperfect development occurs during the pubescent period, largely in consequence of our so-called system of education, which, in so many ways, violates the fundamental principles of both physical and mental hygiene. The nutritive powers overtaxed and impaired by an abnormal life, do not suffice for the proper development of the sexual organs. Malnutrition of the uterus and weakening of its supports, thus brought about, are responsible for its backward displacement occasionally, even in women who have borne children, frequently in childless married women, and generally in virgins.

Increased weight of the uterus tends to produce descent, which in turn carries the cervix forward and permits the intestines to insinuate themselves into the anterior *cul-de-sac* and crowd the fundus backward. This process is continued by the intra-abdominal pressure until equilibrium is established between force and resistance and the uterus is permanently displaced. Whether due to metritis, subinvolution or neoplasms, increased weight acts in the same way; neoplasms of the posterior wall, however, particularly those of the fundus, being back of the center of gravity tilt the uterus sooner than those of the anterior wall.

Insufficiency of the uterine supports, especially of the round ligaments and perineum, whether developmental or acquired, is perhaps the most important factor in the production of backward displacement. A certain general laxness of fiber seems to exist in many cases and to predispose to displacement. In these cases we often find ptosis not only of the pelvic organs—the uterus, adnexa, vagina, rectum and bladder—but also of the kidneys, spleen, stomach and intestines. Subinvolution of the ligaments, vagina and perineum is the most frequent cause of such insufficiency, and when conjoined, as it generally is, with subinvolution of the uterus itself almost necessarily leads to displacement.

The normal form and position of the uterus are largely determined by the elasticity of its walls. Diminished elasticity disposes to flexion and this again to version. This condition may be either developmental or acquired, and due either to thin or flabby structure of one or both walls.

Inflammation and subsequent cicatricial contraction of the utero-sacral ligaments and contraction of utero-rectal adhesions draw the uterus backward and tend to fix it in abnormal position. Cicatricial tissue in the pelvis, as elsewhere, is due to the organization of exudates and transudates which impede the pelvic circulation and fretainly not all of these various and contradictory opinions and methods have their foundation in facts intelligently and adequately observed and rationally interpreted. The tendency is assuredly, and must be more and more, to return to this conception as higher preliminary requirements and normal methods of education are more rigidly enforced by our medical schools. Before this consummation so devoutly to be wished, from the prevailing chaos, let us extract a few facts and principles, at least, for provisional guidance.

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Weight, pressure and traction of neighboring organs play an important part in backward displacement. As already pointed out, there exists in many cases an atonic condition of the tissues that predisposes to ptosis. In these cases the mesentery not infrequently elongates, the intestines drop and their entire weight rests on the pelvic diaphragm; backward displacement is sure to follow. The weight of the enlarged ovaries and tubes, particularly when prolapsed into the posterior *cul-de-sac*, produces a similar result. Pressure of the over-full bladder anteriorly and of the distended rectum posteriorly on the cervix; traction of a short anterior vaginal wall or of the posterior wall in rectocele; straining at stool necessitated by constipation should be included in the same category.

Backward displacements of the uterus are divided into versions and flexions which may exist either independently or conjointly, and either with or without complications. Further classification would seem rather to complicate than to simplify. Evidently with a contrary opinion, however, Olshausen divides retrodeviations into five classes. Notwithstanding the high warrant of his authority, I shall not detain you with their enumeration, believing that greater good will come from the careful study and individualization of these cases than from the most elaborate classification.

Restitutio ad integram is the ideal result no less in gynecology than in other departments of medicine and surgery, and not until it shall seek as far as possible to restore normal conditions rather than to offset one abnormal condition by another, will the treatment of backward displacements of the uterus have been put on a scientific foundation. I shall, therefore, first discuss the means by which in suitable cases we may reasonably hope not only to restore a retroverted uterus to its normal place, but also to retain it there by normal supports, reserving to a later and inferior rank the artificial methods that may be adopted when ideal ones fail or are thought to be impracticable.

As the whole includes the parts, so does improvement in general nutrition include improvement in local nutrition. Hence, to promote and improve the nutrition of the uterus and its supports we must first improve the mother liquor, the blood, the tissue, if we may so call it, which bathes and nourishes and supports all other tissues. To do this the functions of digestion, assimilation, elimination, and innervation must be kept at their highest efficiency. And just here the specialist too often fails of his full duty. Adjusting his vision to the organ he loses sight of the organism; intent on the uterus alone, he sees not at all or but dimly the woman for whom the uterus exists. Notably true is this of the gynecologist who assumes that his specialty is coterminous with the surgery of woman. Accustomed to the rapid and not rarely brilliant results of surgery he has little faith, and unfortunately less indulgence in the slower processes of hygiene and medication. Such members of our profession should not affect the title of gynecologist, but should rather content themselves with the more correct, if the narrower appellation of gynecic surgeon.

Cases must be carefully individualized, errors in hygiene and weak points in the general condition noted and corrected, and the daily life strictly regulated with reference to the ends in view. By intelligent and persevering effort much may be done in this way to improve not only the local nutrition, but also the tone of the nervous system, and thus diminish its reaction to the local irritation.

The tone of the uterine supports may be improved by the systematic use of induced electricity, massage, astringents, hydrotherapy, and graduated exercise.

The absorption of pelvic adhesions and exudates, when not of too recent origin, and when not complicated by the presence of pus, may be promoted by massage, graduated and intermittent pressure with antiseptic tampons; depletion with boric acid and glycerine; hot water douches and hot baths, graduated exercise, heart tonics, and dry diet. By reducing the liquids, ingested to the smallest quantity compatible with complete solution of the urinary excreta, promoting perspiration by hot baths and exercise, and depleting the local circulation by hydroscopic powders and liquids, not only is the avidity of the capillary and lymphatic vessels enormously increased, but also with the condensation of the blood its nutritive qualities are proportionally enhanced.

Metritis and endometritis, especially in the form of subinvolution, partly as the cause and partly as the indirect result of backward displacement, should be relieved by curettage, electricity, depletion, and appropriate uterine support.

Constipation should be corrected in every case.

In order to restore normal supports it will often be necessary to do a plastic operation at the pelvic outlet; in recent cases of lacerated perineum a simple perineorraphy; in old cases, perineorraphy often combined with anterior and posterior colporraphy; in lacerated cervix either repair or amputation. Perineorraphy is frequently a failure therapeutically chiefly for three reasons: (1) Because inflammatory or other concomitant lesions are either overlooked or neglected. (2) Because the new perineum is not of sufficient size or strength. (3) Because of the constitutional tendency to ptosis. Buried sutures and suture stays bring larger surfaces into apposition, and thus thicken and strengthen the resulting perineum.

Shortening the round ligaments is another means of restoring normal uterine supports. In uncomplicated cases of retroversion or retroflexion this may be done extra-peritoneally by the so-called Alexander operation; if adhesions exist posteriorly, Douglass' pouch may be opened by the vagina, the adhesions broken up, and the ligaments shortened in the usual manner, or anterior colpotomy may be done, the round ligaments brought out on both sides, reefed and returned and the incisions closed.

Vaginal fixation is safe and efficient, but on account of the difficult labor that so often follows in case of pregnancy, should not be done if the possibility of child-bearing still exist. Ventro-suspension is indicated only when complications require laparotomy, and not then even if reefing the round ligaments by Polk's or Wylie's method promise the desired result.

Pessaries have fallen into odium and disuse partly because of the surgical obsession that has of late possessed so many gynecologists, and partly because it often requires more skill to select the cases in which a pessary is likely to prove useful to prepare the pelvic organs for it, and finally to fit it than to do an ordinary hysteropexy. In retroflexion, judging from my own observation, pessaries are rarely successful, but in recent uncomplicated retroversion they are indispensable. In these cases the wearing of a properly fitted pessary for a few months in conjunction with the general and local treatment indicated often effects a permanent cure. In chronic uncomplicated retroversion not dependent on a short anterior vaginal wall, more preliminary treatment, time, and patience are necessary, but they are often repaid by the results achieved. In complicated retroversion, adhesions, exudates and all inflammatory lesions must be removed before a pessary is thought of. Generally a preliminary course of packing with antiseptic gauze is requisite to prepare the pelvic organs and to test their sensibility. I have often been surprised by what has been accomplished by this means.

212 J street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and
WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Menstrual Retention from Imperforate Hymen.—If the average student were asked the proper treatment for retention of the menses, he would probably answer that the fluid should be aspirated with every precaution through an orifice made *ad hoc* through the hymen or the structures representing the same. This answer is correct in respect of cases of hematocolpus, properly so-called, viz., cases in which the retention is due to imperforate hymen or to atresia of the vagina low down, but it is very inadequate in the not uncommon instances of complete absence of a vagina, either from congenital deficiency or as the result of acquired atresia high up. In this case the uterus itself is necessarily distended, and there is a real danger of the dilatation extending to and involving the fallopian tubes, constituting hematosalpinx. Several important facts call for consideration in this class of cases. First, access to the os uteri has to be obtained through a passage artificially dissected out between the bladder in front and the rectum behind. Now this passage, when destitute of a mucous lining, is practically impossible to maintain patent, and reaccumulation of the fluid, with recurrence of the symptoms, sooner or later follows. In the second place, the treatment of cases of hematometra associated with hematosalpinx is somewhat dangerous, owing to the risk of regurgitation of the fluid contained in the dilated tubes, or of their rupture. In view of these two conditions, it has been urged that the proper treatment is really to perform abdominal section, in order to remove the uterine appendages with the object of determining cessation of menstruation. Obviously, no such grave intervention would be justified except in the presence of a formal diagnosis of hematometra, plus total absence of the vagina. When the defect is congenital it not infrequently happens that the uterus and ovaries share in the arrest of development, in which case no treatment may be called for. Gynecologists may consider themselves dispensed from the obligation of setting to work to create a vagina simply because the patient does not happen to be provided therewith, for unless by ingenious plastic devices a mucous lining can be secured their labor will be in vain, the aperture invariably undergoing gradual closure owing to progressive cicatricial contraction. Such cases are not always easy to diagnose, and when diagnosed they often present considerable difficulties in the way of successful treatment. Fortunately, they are tolerable rare, though most gynecological surgeons of much experience have met with a certain number.—*Medical and Surgical Reporter—American Journal of Surgery and Gynecology, January*, 1897.

The Virulence of the Diphtheria Bacilli.—In an article in a recent number of the *American Journal of the Medical Sciences*, relative to the virulence of diphtheria bacilli occasionally found in the throat in cases presenting the appearance of simple angina, DR. HERMAN M. BIGGS presents a tabulated report of 48 cases showing the clinical appearances of simple angina, in which virulent diphtheria bacilli were found. After discussing the various aspects of the subject he refers to the following classes of cases: (1) The healthy throats in which diphtheria bacilli are present. In these cases investigation almost always shows that the individuals have been in contact with cases of diphtheria. The presence of the bacilli in the throat without any lesions does not, of course, indicate the existence of the disease. (2) The simple anginas in which virulent diphtheria bacilli are found. These are to be regarded, from a sanitary standpoint, in exactly the same way as cases of true diphtheria. (3) Cases of true diphtheria presenting the ordinary clinical features of diphtheria and showing the Löffler bacilli. (4) Cases of angina associated with the production of membrane in which no diphtheria bacilli are found. These might be regarded, from a clinical standpoint, as diphtheria; but bacteriological examinations show that some other organism than the Löffler bacillus is the cause of the process. It may be urged, as the author suggests, that the cases described in this paper were possibly instances of streptococcus inflammation of the throat in which diphtheria bacilli chanced to be present in the throat secretions, and were only accidental accompaniments and not the cause of the inflammation. He apparently demonstrates, however, that such an inference is not justified, and that the only reason for it would seem to be the desire to retain the anatomical conception of diphtheria—*i. e.*, that it is always an inflammation associated with the formation of a false membrane. It is this conception which he particularly combats. He is very positive in his belief that all inflammations of mucous membranes due wholly or in part to the Klebs-Löffler bacillus should be included under the name diphtheria without reference to the site, or extent, or intensity of the inflammatory process or the character of the exudate. In this belief he is unquestionably in accord with the best and most recent authorities.—*Archives of Pediatrics*, February, 1897.

Closure of the Abdominal Wound.—In discussing this subject before the International Congress at Geneva (*Annales de Gynécologie et d' Obstétrique*), BANTOCK offered the following conclusions: (1) Suppuration of the abdominal wound is due not to the presence of bacteria, but to foreign bodies or strangulation by tight sutures. (2) In many cases simple through-and-through sutures are sufficient. (3) In stout patients it is better to close the peritoneum separately and the remaining layers of the wound with one or two series of sutures. (4) Silkworm gut is the best for interrupted sutures and catgut (*not* chromicized) for buried sutures. LE TORRE thinks that it is not sufficient to unite the fascial edges alone. The edges of the muscle should also be included in the sutures. HOWITZ believes that just as little of the peritoneum as possible should be included; in fact, he approves of the plan of some operators not to suture the peritoneal edges at all, but to allow them to unite toward the abdominal cavity. Patients should not be allowed to leave their beds until three weeks have elapsed. CONDAMIN recommends a tier suture in the form of corset-lacing, especially in large wounds.—*American Journal of Medical Sciences*, February, 1897.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

GEO. B. SOMERS, M.D., San Francisco, Cal.

Limits of Nephrorrhaphy.—DR. HUGH M. TAYLOR concludes that the limits of nephrorrhaphy have not been definitely defined, but should be, in order to limit needless operative interference. He concedes the frequency of nephroptosis, but contends that in more than a majority of cases it does not destroy comfort, good health or life. In properly selected cases the operation is valuable, but should not be done merely because the kidney is movable.—*Virginia Medical Semi-Monthly*, October 9, 1896.

Hypogastric Incision in Removal of the Vermiform Appendix.—DR. WRIGHT says: The hypogastric incision is made nearly parallel with Poupart's ligament. It is slightly curved, having the convexity downward and outward. Draw a line from the umbilicus to the superior anterior spine of the ileum, and divide it into three equal parts. The hypogastric incision is made near the junction of the outer and middle thirds of this line. The location of the incision may vary according to circumstances. The incision may be made quite near the spine of the ileum. It usually begins a little above the line drawn from the umbilicus to the spine of the ileum, or it may be made wholly below this line. At the outset the incision may be about two inches in length, and subsequently it may be extended in either direction if necessary. The incision may afford the following advantages: There is less danger of injuring the subjacent intestine, the lower part of the ileum and the caput coli. There is less tendency to prolapse of the omentum and the ileum. The inner flap can be well drawn toward the median line for the purpose of thorough exploration. This incision enables the surgeon to "wall off," etc., the general peritoneal cavity with facility and certainty. It affords excellent drainage at the time of the operation, as well as subsequently, if the case is one in which primary union cannot be obtained.—*New York Medical Journal*, October 24, 1896.

Policemen Trained in Care of Sick and Wounded.—A letter to the *British Medical Journal* states that a trained "Samaritan" is always present at each police station in Berlin, and 1,500 men have been trained in ambulance work. There are also "Samaritans" in each fire brigade. The latter have cared for 1,533 cases since 1893.—*Journal American Medical Association*, October 31, 1896.

Influence of Pregnancy on the Union of Fractures.—DR. HAM, of Dover, N. H., details the following case: Mrs. H——, American, 35 years old, the mother of two children, was in excellent health at the time of her injury. On March 20, 1896, she fell on an icy sidewalk, and fractured both bones of the right leg at the junction of the middle and lower thirds; the fracture was simple, but the case was complicated by a pregnancy of the fifth month. The leg was put in a Bryant splint and suspended so that it did not lie on the mattress. At the end of the sixth week there was no union whatever; nor was there any indication of induration or of callus at the point of fracture. A plaster of Paris splint was then applied and the patient was allowed to go about on crutches, In the eleventh week there was quite free motion at the point of fracture, and it was not till the end of the twelfth week that the splint was discontinued. The pregnancy was not disturbed by the injury.—*Boston Medical and Surgical Journal*, September 24, 1896.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Lenticular Myopia as a Cause of so-called "Second Sight."—DR. D. B. ST. JOHN ROOSA describes the causes of what is known under the term of second sight. He says that very many of those who are able to read fine type in old age without glasses, are generally short sighted, although it may not be of a high degree. Many people who are slightly myopic, do not recognize the fact. There are some other cases, not myopic originally, in which the patient in after life discards ordinary glasses for presbyopia, and reads for years without them. Lenticular myopia occurs in such eyes; that is to say, the lens becomes elongated by swelling. This swelling, however, if it simply produces the capacity to read fine type without glasses, is not attended with opacity. The condition is, so to speak, an abortive cataract, a swelling of the lens without opacity.—*Medical Record*, January 2, 1897.

Treatment of Corneal Opacities by Electrolysis.—DR. EDGAR STEVENSON reports very favorable results from the use of electrolysis in the removal of corneal opacities. His method of application is as follows: The electricity may be from a constant street current or from a good battery; the latter is simple and more easily managed. A reliable galvanometer and rheostat must be included in the current. The cathode is the active pole, and is applied to the cornea by means of a small silver rod with a rounded end. The anode is of the ordinary sponge and may be applied to the opposite cheek. A pressure of 1½ to 3 volts is sufficient to give the requisite current. This should be about ¼ m. a., and should never exceed ½ m. a. The eye is cocainized, and the patient, who should be lying down, is directed to hold the anode on the cheek. The current is then turned on, and the lids being held apart by the fingers, the silver rod is rubbed lightly over the opacity for about one minute. The galvanometer should be just beside the patient's head, so that the variation of the current may be watched. The cornea should be kept moist. A slight frothing is seen in the track of the rod, but no pain, or at most a slight pricking sensation is felt. A little vaseline is applied to the eye. The treatment should be given every other day or at longer intervals. By using only this small current and not allowing the electrode to rest any length of time on the same spot, all damage to the cornea can be avoided. Faint nebulæ, which, however, have resisted ordinary treatment, are dispersed in from six to ten applications. The denser opacities begin to clear at the edges, and it requires much perseverance on the part of the surgeon and patient before any great improvement to central vision is made in some cases. After 15 to 20 applications of the current, it is well to stop treatment for a month or two, as the cornea appears to get thin and soft, and its curvature may be permanently altered.—*British Medical Journal*, September 26, 1896.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Chancre of the Tongue.—DR. LUCIEN LOFTON says (*New York Medical Journal*): Chancre of the tongue in children is a rare lesion; consequently, I report a case that came under my care several weeks ago. The patient, W. J——, white, aged seven years, was a choreic. At the time I saw him he was being treated by Dr. S. G. Courtney Pinckney, of this city, under whose able management the boy's present condition is vastly improved. It was in the fourth week of his illness that I saw him with Dr. Pinckney. He was suffering considerably from headaches and general malaise, and had no appetite. He swallowed scarcely any solid food, while liquids were taken with indifference. The submaxillary glands were enlarged upon both sides, but upon the right they were more pronounced. The postcervical region showed a true adenitis, while the epitrochlear glands were visibly affected. The parents of the child were quizzed thoroughly, but no specific history could be elicited. The boy was not allowed to leave the room for about a month, and had not come in contact with strangers. The family appeared free from syphilitic taint. Upon inspecting the buccal cavity, I asked the boy to place his tongue against the roof of the mouth, and when he did this I noticed an irregular sore upon the right side of the frenum, which proved a typical chancre. The family said the boy had bitten his tongue here, and appeared ignorant of the true character of the sore. The lesion was examined by Dr. Pinckney, Dr. Nicholson and Dr. Wolff, of this city, who concurred in the diagnosis. The boy's choreic trouble is rapidly disappearing, under proper treatment, while his specific infection is fading under the administration of a sixth of a grain of protoiodide of mercury after meals.

Spermatorrhea of Neurasthenics.—This symptom, insignificant in itself, but which occupies an important place in the thoughts of those neurasthenics in whom it is present, has been studied by ST. GOLDSPIEGEL (*Revue de Therap.*), Spermatorrhea is to be attributed to an exaggerated irritability which is often hereditary. It is best treated by electricity, the positive pole being placed over the lumbar cord and the negative pole on the spermatic cord, the penis and the perineum. An application should last two or three minutes, and is to be repeated from four to six times a week during ten weeks. Static electricity may also be applied. Hydro-therapy and bromid of potassium have also given good results.—*Medical News*, February 13, 1897.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Cerium Oxalate in the Treatment of Tabes.—PROFESSOR BECHTEREW has been using cerium oxalate in the treatment of the gastric crises of locomotor ataxy, and reports marked success with it. The seizures of vomiting were greatly reduced in number, while the actual act of vomiting became easier, and at the same time pain, thirst, and nausea were, to a great extent, diminished. The psychic conditions also improved, restlessness subsided, and sleep returned. Micturition is said to have become slightly more difficult, but not enough to require a catheter. The most important improvement, however, was that food could be retained owing to the diminished number of paroxysms of vomiting.—*Lancet.*

Milk Diet in Bright's Disease.—AJELLO has studied the effect of mixed diet and of milk diet in 21 cases of chronic Bright's disease, and he concludes strongly in favor of a mixed diet; at any rate as far as the chronic stages of Bright's disease are concerned. Of the 21 cases, milk diet increased the volume of the urine in 9, diminished it in 11, and had no effect in 1. The albumin diminished in only 5 cases, and increased considerably in 16 under milk, whilst under the same diet the urea diminished in 18 cases, the phosphoric anhydride diminished in 13, the same for the sulphur in 13 cases, and conversely under a mixed diet these elements showed an increase. In the acute stages the author would advise milk diet, but he is convinced that for the chronic stages of the disease a mixed diet is far better.—*British Medical Journal.*

The Treatment of Diffuse Bronchitis in Children.—M. RENAULT believes that a simple and harmless method consists in giving a bath at 100.4° F. for 7 to 8 minutes every 3 hours until the temperature, taken 3 hours after the last bath, has reached 102.2° F. After the third or fourth bath the fever falls without rising, and the disease becomes a slight bronchitis, without ever becoming capillary. The only drug which is empoyed is quinine sulphate, which acts as general tonic.—*American Journal of Medical Sciences.*

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Widal's Serum Reaction in Typhoid Fever.—WIDAL has tested his method in about 200 cases. Three methods are suggested in carrying out the test. The first method consists of drawing blood from the vein of the forearm with a sterile syringe, decanting the serum, and after mixing with 10 to 15 times its volume of fresh bouillon culture or typhoid bacilli, the mixture is left for 24 hours in an incubator at 37° C. Later, he found that equally good results could be obtained by using a few drops of blood taken from the finger or ear after the usual manner. A single drop of the serum of this blood is added to about 15 drops of the bouillon culture, and then a drop of this mixture is at once examined between a slide and cover glass with a $\frac{1}{12}$ oil immersion lens. If the case is one of typhoid fever, the typhoid bacilli clump together and lose their motility within from 2 to 60 minutes. No other disease has been discovered to give this reaction. Still later, Widal suggested that a few drops of blood dried on glass or paper answers as well as the fresh blood serum, provided the dried blood is mixed with a few drops of water, when the test is about to be made. Dried specimens after this manner may be sent through the mails and will keep their power and produce the reaction for at least 6 months. The Board of Health of the Province of Quebec now announces [September, 1896], that it will furnish a diagnosis free to any physician who will send a few drops of blood dried on paper. In the majority of cases, the serum reaction does not appear earlier than the rose spots and diazo reaction; on the other hand, it persists for several weeks, at least, after defervescence. It shows considerable qualitative variations in different cases, and grows more marked in the later weeks of the disease. It is present in the milk, in the tears, in the serum from a blister, in the fluid of edema, but not in the gastric juice, saliva, or bile of typhoid patients.—*Boston Medical and Surgical Journal*, November 5, 1896.

Antagonism of Heart Disease and Phthisis.—OTTO has collected a number of cases bearing on this question. His statistics concern 48 cases of valvular disease of the heart, and 185 cases of phthisis in males, 63 of valvular disease and 133 of phthisis in women. In the 48 male heart cases, primary tuberculosis was found only once, and in 10 cases, progression of the pulmonary condition was combatted by the heart disease. Among the 185 cases of phthisis, 29 cases of chronic and 4 cases of recent endocarditis were encountered. In women, 4 cases of phthisis were encountered among the 63 cases of heart disease, and among the 133 cases of phthisis, secondary heart disease was met with 15 times.—*Virchow's Archiv.*, Bd. 144, Hft. 159.

Urticaria of the Respiratory Passages.—DELBREL, from a study of numerous cases, formulates the following conclusions: (1) In certain cases, the skin eruption is primary and the respiratory trouble is secondary. (2) In a secondary type the respiratory trouble is primary, followed later by the eruption. In many instances the urticarial trouble so closely resembles other affections of the respiratory tract, that it is confounded with them until the mistake is made evident by the cutaneous eruption. In some instances the only manifestation of the urticarial trouble, is that affecting the respiratory mucous membrane. The respiratory embarrassment is evidenced by attacks of asthma, suffocating attacks with irritating cough, simulating edema of the glottis. With the laryngoscope, which is difficult to use in most instances, one may observe red, raised erythematous patches in the larynx; where it is impossible to gain a view of the larynx, the existence of such patches in the posterior pharynx may be of value in diagnosis. Many of the cases where the respiratory affection is severe are oftentimes alarming, and not infrequently terminate in death. The appearance of the cutaneous eruption is a favorable sign, and the author suggests that in acute cases, with severe pulmonary manifestations, without urticarial eruption on the skin, the latter should be induced to appear by thorough friction of the skin.—*Journal de Medicine de Paris.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Double Craniectomy in a Case of Symptomatic Idiocy with Post-mortem Findings.—DRS. BOURNEVILLE, LOMBARD, and PILLIET give a detailed account of the history and results of the autopsy in the case of an idiotic boy, in whom there was a marked heredity by reason of alcoholism and mental disturbances of parents and grandparents. The pregnancy and delivery of the mother (by forceps) had been pathological. When the child was 8 years old, craniectomy was successfully performed on the right side, and 10 months afterward on the left, but the anticipated psychotherapeutic result did not show itself. At the autopsy, one of the clefts in the bone was found completely closed up, the other was on the road to ossification. The saggital suture was completely ossified. The authors are of the opinion that this premature ossification is a result of the increase in cell-proliferation going on in the bridge of bone separating the two openings left by the craniectomies. The form, size (it was microcephalic) and anomalies of the brain, the arrest of development of the sulci and gyri, and the results of the examination of the nerve elements indicate extreme embryological disturbances, and may be regarded as the cause of the idiocy in this case.—*Progrès Médical.—Centralblatt f. innere Medicin.*

A Case of Traumatic Neurosis Quickly Followed by a Psychosis.—DR. W. GÖBEL reports the case of a woman, 43 years of age, who had received a wound on the right hand, requiring amputation of a finger. Soon afterward vasomotor and mild trophic disturbances set in, with contractures of the right hand, of the right arm and leg, right-sided hyperesthesia, excessive concentric contraction of the field of vision, and a retarded velocity of all muscular movements—in short, the picture of a trophic neurosis. After a short time, the symptoms of paranoia began to develop. The author assumes a causal relationship between this and the traumatic neurosis, but does not express himself any further on the subject.—*Berliner klin. Wochenschr.—Centralblatt f. Innere Medicin*, September 5, 1896.

Appreciation of Changes in Nerve-Cells.—DR. NISSL regards an exact appreciation of the changes in the nerve-cells as the basis of a true pathology of the nervous system. This should be worked out by observations on animals. Nissl claims to have made noteworthy progress already; he claims to be able to answer in the affirmative the question formerly so much disputed—whether after poisoning with lead, arsenic, phosphorus, etc., typical alterations may be found in the nerve-cells? He has not only found such changes after chemical and bacterial poisoning, especially that of tetanus, but he has been able to produce them by section separating the motor tracts from the muscles by deprivation of food and by electricity. He even claims to be able to distinguish the cells excited by electricity from their neighbors, which have not been so influenced.—*Neurol. Centralblatt—Dublin Journal of Medical Science.*

Observations on the Prognosis and Duration of Attacks of Mental Disease.—At the meeting of the American Neurological Association in June, 1896, a paper on this subject was read by DR. HENRY R. STEDMAN. In opening the discussion upon it DR. WALTER CHANNING, of Boston, said that the percentage of cure of cases of insanity is considerably larger than one should be led to suppose from the statistics published by certain writers, as Dr. Earle. During the past 50 years it appears to Dr. Channing that there has been a change in the character of the cases of mental disease admitted to hospitals. Formerly there were more cases of mania characterized by violence or excitement. Now there is a steadily increasing number of degenerative cases admitted to asylums, as contradistinguished from the cases of acquired insanity. With a change in the type of mental disease, a change in classification becomes necessary, and Dr. Channing thinks it is time that varieties of brain disease, like general paresis, should be excluded from strict classification of insanity. They tend to lower the recovery rate, and do considerable harm in giving a misleading idea as to the curability of insanity.—*Journal of Nervous and Mental Disease.*

Treatment of Epilepsy.—DR. P. DIGNAT has drawn the following conclusions from his observations of the effect of vesicants applied along the seat of aura in epilepsy: (1) The circular vesicants applied along the course of the aura, either at the point of departure, or immediately to the center of it, constitutes one of the most efficacious forms of treatment for certain forms of partial epilepsy, with motor or sensory auræ. (2) The treatment is applicable to partial epilepsy not due to cranial injury, cerebral syphilis, or any organic cerebral lesion. (3) Observation has shown that this procedure succeeds in cases where other modes of treatment have failed. (4) Finally, this method is absolutely inoffensive and devoid of secondary symptoms such as arise, for instance, after long administration of the bromides.—*Bulletin Général. de Thérapeutiqe—Journal Nervous and Mental Disease.*

Insomnia and its Treatment.—DR. MAURICE DE FLEURY employs dynamic treatment instead of hypnotics in all cases of insomnia not arising from acute pain or irritation of the meninges (tumor or meningitis), and finds this treatment efficacious and easy of application. A study of arterial pressure at the radial pulse in those suffering from insomnia demonstrates that this pathological phenomenon coincides either with a state of marked hypertension or excessive hypotension. Without the aid of drugs, and by the employment of simple physical procedure, it is easy in the great majority of cases to restore the arterial tension to normal and at the same time to cause sleep. It is always useful to add to this physiological treatment a psychological one, and cause a habit of sleep. There are two kinds of insomnia: the neuropathic, in which suggestion is applicable, and the more serious form in which the treatment by opium or chloral is justifiable. The insomnia of neurasthenia, that occurring during convalescence from typhoid fever, and that accompanying a condition of low arterial tension, all have the same pathogeny. When a patient with a systole cannot sleep, it is because the arterial pressure is low. If his feeble heart is relieved with digitalis, sleep at the same time becomes possible. In a great number of cases one can substitute the dynamic agents, such as massage, frictions, douches, and transfusions, and at the same time caffeine and digitalis may be employed as heart tonics.—*Gazette des Hôpitaux—Journal of Nervous and Mental Disease.*

FORMULÆ.

By H. E. Sanderson, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

Ointment for Mumps:

Ichthyol.
Plumbi iodidi ....āā gr. xlv
Ammon. chloridi ....gr. xxx
Adipis.................... ℥i

S.—Apply twice a day.—*Journal des Practicien.*—*Therapeutic Gazette.*

External Application for Sweats:

Balsam. Peruvian. ......gm. 1
Acid. formic. 5
Spirit. rect. 100

—*Medical and Surgical Reporter.*

Sciatica and Myalgia:

Sodii salicylat............ ℥ss
Olei cajeputi.............. ʒss
Olei eucalypti..........m. xv
Liniment. saponis....... ℥ss
Spirit. rectif. ...*q. s. ad.* ℥viii

Sig.—Liniment.—*Lancet.*

Vomiting of Pregnancy:

Orexin, in 4½ grain doses, (in capsules) three times a day.—*Centralblatt f. Gynäkologie.*—*New York Medical Journal.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for December, 1896.—The deaths registered in 51 town districts of the State, during the month of December, in a population of 774,280, correspond to an annual rate of 17.28 a thousand, the total mortality having been 1075. 74 deaths were due to zymotic diseases, giving an annual rate of 1.18 a thousand. Of these, 24 were due to diphtheria, 5 to cholera infantum, 23 to typhoid fever, 3 to diarrhea and dysentery, 5 to cerebro-spinal fever, 2 to whooping cough, 5 to croup, 6 to intermittent and remittent fevers, 0 to scarlet fever, 1 to measles, and 0 to small-pox. 305 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.68 a thousand. Of these, 181 were due to consumption, 91 to pneumonia, 26 to bronchitis, and 7 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.76 and 1.44, respectively. 117 deaths resulted from diseases of the heart, 2 from alcoholism, 3 from erysipelas, 47 from cancer, and 463 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 618,000, was 18.12. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from San Diego.

METEOROLOGY.

Summary for December, 1896—*Temperature.*—The normal temperature of the State for December is 52.9°; the average for December, 1896, was 50.1°, a departure from the normal of -2.8°. The highest monthly mean was 63.6°, at Santa Monica; the lowest, 26.0°, at Bodie. The maximum temperature was 92°, at Downey and Pomona, on the 3d. The minimum, 1°, at Bodie, on the 31st. The absolute range for the State was 91°. The greatest monthly range was 57°, at Nordhoff; the least, 18°, at Point Lobos.

Rainfall.—The normal precipitation for the State for December is 4.42 inches; the average for December, 1896, was 3.47 inches, a departure from the normal of -0.94 inches. The greatest monthly precipitation was 17.23 inches, at Delta; the least, nothing, at Beaumont, Indio, Mammoth Tank and Palm Springs.

Wind.—The prevailing direction of wind was N. to S.E.

Unusual Features.—There was no unusual meteorological phenomenon to record during the month of December.—James A. Barwick, Director California Weather Service.

California—Tabular Statement for December, 1896.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	54.0	74	36	----	----	----	----	2.98	----	----	----	----	N.E.	Southern Pacific Company.
Berkeley......... "	51.0	61	39	56	45	11.0	11	4 20	87	11	13	7	S.	Obs. University of California.
Colfax........... "	48.0	74	29	----	----	----	----	5.58	----	----	----	----	N.E.	Southern Pacific Company.
Coronado........ "	65.0	89	49	75	54	21.0	5	2.18	72	20	8	3	N.E.	Hotel del Coronado.
Eureka.......... "	51.0	66	36	58	44	14.0	16	9 41	85	5	14	12	S.E.	Weather Bureau Dept. Agr.
Fresno........... "	50.0	69	30	58	40	18.0	9	1.00	78	18	5	7	S.E.	" " "
Keeler .... "	49.0	70	35	----	----	----	----	0.25	----	----	----	----	S.	" " "
Los Angeles.... "	59.0	84	42	70	48	22.0	5	2.12	66	15	12	4	N.E.	" " "
Monterey .... "	54.0	68	34	----	----	----	----	2.51	----	----	----	----	S.	Southern Pacific Company.
Napa........... . "	50 0	65	30	60	40	20.0	11	3.41	65	10	10	11	S.SW.	Station Napa Insane Asylum.
Oakland .... "	50.0	62	37	57	44	13.0	9	4.29	90	8	15	8	S.E.	Chabot Observatory.
Paso Robles.... "	47.0	69	30	57	36	21.0	7	2.48	----	11	14	6	SW NW	Agr. Experimental Station.
Red Bluff....... "	49.0	63	35	56	42	14.0	13	6.20	83	9	8	14	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	49.0	63	33	56	42	14.0	10	1.76	75*	4	11	16	S.E.	" " "
San Bernardino "	54.0	81	31	69	40	29.0	2	1.09	----	15	13	3	W.	A. K. Johnson, M. D
San Diego....... "	59.0	78	46	68	50	18.0	5	2.18	72	20	8	3	N.E.	Weather Bureau Dept. Agr.
San Francisco.. "	53.0	64	42	58	48	10.0	11	4 34	84	6	13	12	N.	" " "
Santa Barbara.. "	58.0	79	44	68	48	20.0	3	2.92	65	20	3	8	W.	Hugh D. Vail.
Santa Cruz...... "	53 0	76	30	66	40	26 0	10	4.87	----	18	2	11	W.S.	W. R. Springer.
Yuma...........A. T.	59.0	78	41	71	46	25.0	2	0.78	46	24	6	1	N.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

* means humidity at 5 P. M.

Occidental Medical Times.

Communications are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: FEBRUARY, 1897.

THE THIRTY-SECOND SESSION OF THE LEGISLATURE.

The thirty-second session of the Legislature commenced on January 4, 1897. As usual a very large number of bills have been introduced, the total being 1,707. Of the various measures of interest to the profession, of which there were a number, but very few have passed both Houses at this date. It would be now impracticable to review these measures *in extenso*, and we shall reserve for a later date the consideration of such measures of professional interest as may become law, with their bearing upon existing statutes.

The medical profession is, as usual, very sparingly represented, there being but two members of the profession as against four in the last Legislature. In the Senate, DR. J A. PEDLAR, of Fresno, still represents his county, while in the Assembly DR. T. A. KEABLES, of Bodie, is our sole representative. DR. A. J. FORMAN, an eclectic physician, is also a member of the Assembly. In view of the growing importance of all matters in which the profession is interested to the community at large, the increased appropriations for institutions which are more or less under professional control, and the vast strides that are being made in sanitary matters, it seems desirable that greater efforts should be made by the medical profession for better representation in the Legislature. The average physician, with his general education and professional training, carrying with it, as it does, a large amount of common sense and knowledge of human nature and of affairs, must be a better representative for the people than the average politician. In this connection, the language of PRESIDENT CLEVELAND, in his address before the New York Academy of Medicine, is worthy of attention. Deliberate utterances of this character coming from one who has, himself, had a wide political experience, should receive proper weight, and of the truth of the Chief Executive's comments there can be no question.

NOTES.

The Semi-Annual Meeting of the California Northern District Medical Society.

The semi-annual meeting of the California Northern District Medical Society will be held in Arthur's Hall, Railroad street, Auburn, on Tuesday, March 9, 1897. Definite arrangements as to time of sessions and means of transportation will be issued to members within a few days. The following are the titles of papers, with the names of their authors, and of those who will open the discussions upon them: "Gunshot Wounds of the Liver, with a Report of Two Cases," David Powell, Marysville; T. W. Huntington, Sacramento. "The Present Status of Croupous Pneumonia," L. K. Lord, Brownsville; C. E. Stone, Marysville. "Some Unusual Cases in Ophthalmic Practice," William Ellery Briggs, Sacramento; J. H. Parkinson, Sacramento. "Puerperal Eclampsia," O. Stansbury, Chico; W. A. Briggs, Sacramento. "Placenta Previa, with a Report of a Case," G. W. Burke, Chico; L. Melton, Wheatland. "Bromine as a Topical Application in Diphtheria," E. B. Robertson, Jackson; T. P. Peery, Yuba City. "Early Experiences", in Midwifery J. S. Cameron, Red Bluff; J. R. Todd, Gridley. At the close of the meeting a banquet will be tendered the visitors by the Placer County Medical Society. The following are the Committee of Arrangements: R. F. Rooney, Auburn, Chairman; B. F. Mardis, Forest Hill; M. Schnabel, Newcastle; T. M. Todd, Auburn; J. C. Ford, Rocklin.

SPECIAL ARTICLES.

RACHITIS IN CALIFORNIA.

At the last meeting of the State Medical Society a paper was read by DR. H. M. SHERMAN, of San Francisco, calling attention to the prevalence of rachitis in California, more especially in its lighter forms, and expressing the opinion that the disease was affecting an increasing number of children, and also that its presence, as a definite pathological state, was often overlooked. Inquiry of the writer of the paper brings the answer that he has not changed the opinions he then expressed, and independent observation apparently confirms his statements regarding the prevalence of the disease and the comparative rarity of its recognition. JACOBI and COHN both call attention to the fact that the largest number of new cases of rachitis are seen in the spring, after the house confinement of the child during the inclement winter months, and, though this factor does not play so important an etiological part in this State as in the East and in Europe, still the present time is not an inopportune one to recall the subject.

Rachitis so plainly affects the bones in all except the mildest cases, that it takes only a glance to recognize the condition; but with these self-evident cases we do not here concern ourselves. We wish to refer to those cases where the usually most obvious signs are, from the mildness of the case, not strikingly developed, and yet where the rachitis condition is present. A study of the ordinary types of the disease, as it is seen in clinics, shows that, while there is great uniformity in the order and development of the lesions in the skeleton, still the uniformity is not absolute, and this must be so, too, in the milder cases where bone changes are not prominent. It is difficult, then, to draw a picture of a typical very mild case. It should always be borne in mind that a rachitic child is not necessarily a thin one; on the contrary, they may be very fat and large, but the tissues are all loose textured, and the folds of adipose around the flexures are flabby, while the color of the child is quite sure to be pale, and this will show, not only in the skin, but in the conjunctiva of the lower eyelid. The child is really anemic, and is, in addition, weak, disliking much exercise, and when forced to it becoming quickly fatigued. The proneness of even those slightly affected to catarrhal inflammations is evidenced by the readiness with which they take cold on insignificant exposure, and the tenacity with which these colds hang on, keeping up a constant coryza and a long lasting bronchitis, though neither may be of severe type.

In examining a child a year old, with rachitis in mind, we would look at the head, note the size of the anterior fontanelle, and especially the condition of the edges of the bone about the opening, as to whether there was a definite firm edge, or if it was soft and elastic. For a too large opening with soft elastic edges is, according to COHN, one sign of rachitis. The time of the eruption of the first tooth should be learned, for delay of this beyond the eighth month is held to be due to rachitis, while irregularity in the order of the coming of the following teeth is a very reliable symptom. The trunk shows, quite early, the classical changes, more or less marked; the prominent abdomen contrasting with the disproportionately smaller thorax, the line between the two being shown by the transverse depression—Harrison's groove—when the diaphragm is attached to the ribs; but in the very mild cases the groove is not so plainly developed, and, instead, there may be only a slight outward flare of the lower borders of the ribs, or there may be no appreciable bony deformity. The enlargement of the ribs at the costo-chondral junction, the so-called "beading," is a sign which has been considered to be pathognomonic if it existed in the slightest degree; but J. LEWIS SMITH has stated, and we think with perfect justice, that the finding of one or two small beads does not necessarily mean rachitis, but that a recognizable series, a partial or complete "rosary" should be demanded. It is quite certain that if such a series is found, the child has rachitis, and if it is not found the diagnosis, so far as this sign is concerned, may be considered doubtful. The examination of the wrists and ankles for enlargement of the lower epiphyses of the radius and ulna, and of the tibia and fibula may, in the mildest cases, call for discrimination between a large boned child with a well marked skeleton, and a small boned child with enlarged epiphyses. The wrist is the most obvious part and here the symptom, when it exists, is most easily recognized, because of the shape of the bone, but there are many cases on the border line in which corroborating evidence must be sought.

A frequent complaint by the mother will be that the child constantly kicks off the bedclothes at night, and that it sweats about the head and neck while asleep. Neither of these are enough to base a diagnosis on, but they are so commonly present, in rachitic children, especially the head sweating, that the complaint should lead at once to the child being thoroughly examined, and in a large majority of cases, some two or three of the signs or symptoms that have already been enumerated will be found. We believe that this can also be said of cross and fretful babies; a perfectly healthy baby is a thoroughly good natured one, for its physical condition does not disturb it, and nothing else can; the fretful baby is, for some reason, uncomfortable, and the cause of its discomfort will, in many instances, be found in a slight rachitis, so slight that its external evidences must be carefully looked for to be appreciated. There is nothing that more surely disturbs the serenity of a baby's disposition than indigestion; it is a condition of serious importance in more ways than one, and, in addition, it is often a prominent symptom of rachitis. The causation of the disease is most closely connected with improper alimentation and assimilation, and this must be considered and must be given due weight in making a diagnosis in mild and, perhaps, obscure cases. It is not intended to convey the impression that every baby who has indigestion has rachitis, that would be too sweeping a statement; but it is within the truth to say that every baby who has a chronic indigestion is potentially rachitic, and may, at any time, become the subject of an acute and unmistakable outbreak of the disease with bone lesions, amounting to definite deformities.

This brief enumeration of the ordinary signs of the condition really gives enough for the making of a diagnosis in all but the vaguest cases, for rachitis is not difficult of recognition generally, and there is but little it may be confounded with. Practically congenital syphilis is the only disease from which it must be differentiated, and ASHLEY and WRIGHT make the following statement of contrasts, though it must be remembered that they are considering the medium and severe types of rachitis rather than the mild. "Tenderness and swelling of the epiphyses, of the long bones in an infant, are strong evidences of syphilis; we attach no importance to cranio-tabes, or bosses on the cranial bones, or the natiform skull, as they may be undoubtedly present in rickets and perhaps other conditions. Syphilitic epiphysitis can hardly be mistaken for the enlargement of the epiphyses present in rickets. In syphilis the swelling is situated between the epiphyseal line and the shaft, while in rickets the swelling involves the epiphysis itself. Syphilitic thickening occurs in infants of six weeks to three months old, while the rickety enlargement is rarely seen before six months of age, and more commonly at a year or eighteen months of age." That the two diseases may exist side by side in the same child is quite possible, but the syphilis would then outrank the other in point of importance, and it is quite certain that in the proper dietetic management of the greater, the lesser would be included in the improvement.

The management of the condition depends so entirely on the exact appreciation of its cause, that we have preferred to speak of the two together—the strictly medicinal treatment is of comparative insignificance. Rachitis begins most frequently during the second and third six months of life, a transition time for the infant who has been suckled, from the breast to other sources of food, and the period for the establishment of the power to digest starch. J. LEWIS SMITH says, and practically all other authorities agree in the statement: "Of the antihygienic conditions which give rise to rachitis, the most common and potent appears to be the use of food not sufficiently nutritious, or, if nutritious, not suited to the age and digestive power of the child. The use of thin and poor breast milk, and artificial food of poor quality, or not suitable for the stage of growth and development, is a common cause of rachitis. Those children who have been prematurely weaned, and who have been given a food which is not a proper substitute for the natural aliment, and those too long wet-nursed by scantily fed and poorly nourished mothers, and not allowed the additional aliment which they require, are especially liable to this disease."

ROTCH states that of all the ingredients of woman's milk, the one which is least variable in the proportion present, is the milk sugar. A poor, thin breast milk, then, would be short of proteids and fats, and would have, in relation to them, too much sugar. The milk of the ordinary woman who can suckle her child, usually maintains its good quality for at least six months, and then may begin to fail, the two most important elements diminishing in quantity, and this is the beginning of the time in the infant's life when rachitis is noticed. When the food contains a relative excess of carbo-hydrates and both a relative and absolute deficiency of nitrogenous and hydrocarbonaceous element. The same fault pertains with the woman whose milk has been poor from the beginning, but at this time the fault is greater or the flow ceases altogether.

Of the artificially fed child practically the same thing can be said, for almost all the usual plans of artificial feeding fail to supply the proper ingredients in the proper proportions, but here it is to be especially noticed that the chief fault is the lack of fat. This same fact holds with relation to cow's milk, which is, or should be, the first thought of substitute for mother's milk; but we believe that rachitis is very rare in the child who can digest and assimilate cow's milk, even though it is, in comparison with woman's milk, short in fat and has an excess of caseine. Of every one of the mixtures made with proprietary foods, the deficiency of fat is most striking, some of them not having even one-quarter of the proportion in woman's milk, while they very generally supply an excess of sugar, and not a few of them contain starch. On such a diet, then, the child would be in much the same case as the child on poor breast milk; the fat in each is deficient and the sugar proportionately in excess; in each there is the tendency to the development of rachitis in the child. We do not think this point can be too strongly made, for the child thus fed is not only at the best a potential rachitic, but it is robbed of its power of resistance to other intercurrent diseases, and its chance of living through the ordinary illnesses of childhood is lessened, and even if it does survive them it may have received injuries which mar the adult's life. This whole subject has been very thoroughly discussed of late years, but less in general medical journals than in those devoted to pediatrics, and for the latest expositions of it we refer the reader to the "American Text-Book of Diseases of Children," edited by LOUIS STARR, and to ROTCH'S "Pediatrics."

With this etiology the treatment is obvious. Improper and insufficient food causes the condition, and it disappears when the diet is made suitable and ample. If the child is still at the breast, examine the mother's milk to discover its error, and then, by the regulation of her life, correct this. If this prove to be impossible, supplement the breast with food adapted to the special needs of the case. If the child is being artificially fed, change at once from the faulty food to a proper one. With the present knowledge of what is really needed, this should be a very simple matter, for it is nothing more than the modification of cow's milk by dilution with water, and then the addition of cream and sugar of milk until a mixture is produced, the chief ingredients of which are in about the same proportion as they are found in woman's milk. In still older children, who are taking a mixed diet, it will often be found that they are on a diet in which starches are in excess; they are given fat makers, not fats, and yet the child demands fat. Here this popular remedy for children below par, cod liver oil, really does excellent service, and we believe that the universal administration of it by physicians and parents has been of much more marked benefit to the rachitic than it ever was to the tuberculous. But with the administration of this there should be regulation of the diet, so that the different staples are properly represented. We do not mean here that the mother should merely be instructed to "feed the child well." We mean that the diet should be regulated in detail by the physician.

While the question of food is the burning question in the development and in the cure of rachitis, general hygiene must not be neglected, and proper sunshine, fresh air and baths, and clothing must be supplied. With all these given and tuberculosis happily avoided, the child must have a very low vital power indeed who fails, in California, to grow into a sturdy adult.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, December 15, 1896.

The President, F. B. SUTLIFF, M.D., in the Chair.

Some Observations on Fever and Its Treatment.—DR. H. W. STRADER read a paper upon this subject. He said: The majority of cases presented to the physician for treatment, have, as a common symptom, fever. The immediate cause of this elevation of temperature is probably a disturbance of that part of the brain in which there is a heat controlling center. Naturally the first point in the treatment of any case of fever is to determine its cause. Accompanying the elevation of temperature, changes generally take place in the blood and in the vital organs, but there is no perceptible lesion that is invariably present with an elevation of temperature. The rapid strides made in medicine and surgery during the past fifteen years have brought about many changes in our methods in the treatment of disease. We no longer treat typhoid fever, diphtheria or appendicitis on the expectant plan, but having reached a definite conclusion as to the exact nature of the trouble we use remedies appropriate for the case. In appendicitis the treatment is surgical and aseptic, while in diphtheria the antitoxin treatment is based on the same principle, but differently applied. The speaker said he no longer used quinine in the treatment of typhoid fever because he had learned that it did his cases more harm than good. Intestinal antisepsis is the keynote of the treatment of this condition, and this practice while banishing delirium, tympanites and other evidences of sepsis, enables a generous diet to be used throughout the case. In diphtheria it is generally conceded by the proponents of antitoxin that the remedy acts by stimulating leucocytosis, thus enabling the organism to resist the action of the toxines already present. In a precisely opposite manner the coal-tar derivatives retard leucocytosis, and their use should therefore be restricted to those acute diseases that will end in recovery, but whose symptoms it is meanwhile desirable to control. There is no doubt that their continued use will produce anemia, which, in many diseases, would be as serious a condition as the original disease. The application of cold should be restricted to those cases in which the temperature is very high and in which the cause cannot be immediately reached by antiseptics. The speaker regarded fever as a protective process, its development being an effort on the part of nature to shield the system from the results of infection. High temperatures were not so favorable to the development of microörganisms as were normal temperatures; on the other hand, a subnormal temperature increases the susceptibility to infection, as is shown by subjects in states of intoxication. The one important subject to bear in mind in the application of cold for the reduction of temperature is, that we wish to abstract heat and not to prevent its formation, having in view the fact that fever is a protective process. Among the remedies best suited to produce intestinal antisepsis are guaiacol, salol, hydronaphthol, and the mercurials, the laxatives, as sulphate of magnesia, castor oil, etc., being used for eliminative purposes.

Dr. F. Gundrum: I wish to speak of one subject particularly, in regard to fever, and that is the abstraction of heat by cold. I find in my journal reading, and in books, there are several things that are not referred to in the treatment of fever by the application of cold. When a physician considers that water is used for the abstraction of heat he is considering the least in the use of water in fever. The application of water to the nervous system and the shock produced thereby carries an influence to the spent nervous centers that is reflected through the whole system, and nutrition is stimulated to its utmost. Cold water is of great benefit in fevers, as this stimulation of the organs, and especially of the emunctories of the body which eliminate toxines, keeps the patient fresh and in a high state of nutrition. I know from the applications I have seen of water that it is applied wrong nine times out of ten. In private practice it is best to get along without the Brandt treatment, with cathartics and antiseptics, but if I see any danger ahead, any lack of metabolism, or that toxines are affecting the patient, I resort to the application of water. I never use the full bath in fever; half a bath is better, and use friction. Without friction the cold bath should never be used.

Dr. G. A. White: Very much remains to be said upon the subject of fevers. The author included in his paper a grouping of three diseases under one head, namely: typhoid fever, diphtheria and appendicitis. How he could possibly combine them in one paper I do not know. I regard appendicitis as a surgical disease, and one not usually amenable to medical treatment. I had a case about two months ago and attempted medical treatment, as on some other occasions, but was disappointed. The patient was sick in September with appendicitis, but would not consent to an operation. He, however, came back about the first of December and submitted to an operation. In that instance there was a nodule about the size of a walnut. I found about two ounces of pus, with an exploded appendix. No medical application, in my opinion, could remedy that trouble. Appendicitis should not be grouped with fevers.

Dr. Strader: The idea I wished to convey is this: I selected these three different diseases to illustrate the antiseptic treatment of fever. I said the removal of septic material from the body without an operation in appendicitis was impossible.

Dr. G. L. Simmons: The title of the author's paper reminds me of a discussion that occurred at a very prominent medical organization in New York, where the question came up, "What is fever?" I was very much interested in the report of the proceedings because no one seemed to give an intelligent definition of what fever is. Viewing it as a process by which nature is endeavoring to get rid of toxic germs, it has always seemed to me a very unwise proceeding to administer that class of drugs that would interfere with that process. Take typhoid fever, for instance, as we find it here, many of those cases are certainly quite obscure, that is, we have been in the habit of having long runs of fever, without some of the essential symptoms of typhoid, and we have classed them as typho-malarial fevers. It has always seemed to me, and I have so expressed myself, that in those long continued cases, we do not aid recovery by giving the newer coal-tar products, whereas we administer a tonic with the quinine treatment. I have not yet decided in my own mind the uses of the coal-tar series in this class of disease, although nearly every day I administer them, because they do, as stated by the author, comfort the patient and reduce temperature. In regard to the water treatment mentioned by Dr. Gundrum, it is difficult to carry it out successfully in private practice.

Dr. W. J. Hanna: In private practice it would be a difficult matter to give baths. Recently, in several cases, I have found the application of cold, applied dry cold, to be of a great deal of advantage. The cold coil should be used, as in any house you can obtain ice.

Dr. H. H. Look: I shall always remember the words of Professor Delafield, who said that he never interfered with the normal temperature in pneumonia, typhoid fever and diphtheria unless it reached the dangerous point. I have pursued that course. I never interfere with the temperature in those long continued cases unless the temperature reached a point where it was dangerous. The use of water is beneficial, as it assists the skin in getting rid of the toxin. I always permit of considerable water being taken internally, as it promotes the action of the kidneys, produces diaphoresis, and in that way sluices out the body and lowers the temperature. I cannot see, so far as the reduction of temperature is concerned, that the coal-tar products are of great importance except in those cases where the temperature runs high. I like them for the seemingly antiseptic effect which they have. I give phenacetin in small doses in long continued cases, as I think it has a tendency to render the intestinal canal antiseptic. I never give large doses as it taxes the heart, which gives out when you want it most. I have never experienced any of the irritating effects from the use of quinine expressed by the author of the paper. I use it for the purpose of stimulating the nervous system and for keeping the heart's action in good condition. In private practice a great deal of latitude must be allowed to any physician. Environment, and the social and financial condition of the patient; everything must be taken into consideration when you are figuring up the treatment of your case.

DR. J. H. PARKINSON: One point in which I differ from the author is, the pernicious effect of quinine in enteric fever. I have given it often, but in moderate doses, and have never experienced any bad effects from its use, not even in the ulcerative stages. As regards the coal-tar products, I think they are valuable remedies, but should be used with caution, like opium and digitalis. They are invaluable for the comfort they produce. I think, however, in certain depressed conditions they must be used carefully. In elderly people they should be used with the same caution that opium is in those of tender years.

DR. H. D'ARCY POWER: The author of the paper stated the most important things in the opening sentences. In considering this question we have to remember that it is a chemical change which is going on in the body by which heat is produced. We are burning fuel, and the higher the temperature the greater the amount burned, the greater the destruction of tissues. This falls with a special severity upon the muscles, and particularly the muscle of the heart. It is, therefore, a very important point to know whether we ought to allow this to continue. It is to be remembered that it is a process which tends to perpetuate itself. The greater the temperature the more active the chemical action, which in itself further increases the temperature. I think, therefore, from my practical experience and from reading, that it is right and necessary to check this abnormal temperature irrespective of any possible effect upon the supposed pathological substratum. In what way can we prevent chemical action? We have three or four. (1) By preventing the chemical changes which give rise to it. The coal-tar products diminish metabolism and act in this manner. (2) By the abstraction of heat, that is, the application of cold. (3) By diminishing the supply of blood to the organs where the abnormal changes are taking place. Of the second process we have an example in the use of ice and the cold pack. Of the third, the use of digitalis, a drug that has long been used in Germany in controlling fever, and which I have used in scarlatina with particularly good results. As to which of these methods should be used the condition of the patient and the nature of the case must determine, Thus, the cold pack, excellent in typhoid fever, is of doubtful utility in pneumonia. The coal-tar products, such as acetanilid, excellent in sthenic fevers, are distinctly contraindicated in pneumonia and bronchitis. Dr. Simmons referred to typho-malarial cases. I would like to call the attention of the members of the Society to the great step forward which has been taken in eliminating the difficulties in diagnosis between malaria and typhoid, by the introduction of Widal's method.

DR. L. A. HARCOURT: In regard to temperature, some of the speakers have said it would not be wise to interfere unless it reached the dangerous point. What is the dangerous point? It seems to me that the guide is when the temperature is so high as to interfere with the comfort of the patient, then it ought to be reduced by some means. I think the best practice is to give no antipyretics unless the temperature is above 103° F. Quite a number are carried through without any antipyretics at all. When the temperature is so high that the patient is burning up then it must be lowered or you will lose your patient. It is a question of individual judgment what method shall be used to reduce temperature in any case. In feeble patients the cold bath would be dangerous. Sponging with tepid water would be more beneficial. So also the administration of antipyretics and the coal tar products would be contraindicated in those cases. In regard to quinine, it seems to me that it is the most important drug we have; and I think there is scarcely a disease known in which quinine is not indicated and useful. I use it more than any other drug, and when combined with any of the antipyretics it acts admirably. As regards appendicitis being a strictly surgical disease, there is considerable difference of opinion upon that subject. Dr. Senn, of Chicago, who has had a great deal of experience in that line, stated in his address before the American Medical Association, at Atlanta, that surgical treatment should not be resorted to at the outset, as a vast majority of the cases get well with medication, but that in the recurrent cases surgical interference becomes necessary. In regard to the water treatment, it is difficult to carry out in private practice. I would prefer sponging, or the cold coil.

Dr. W. A. Briggs: It can be pretty well maintained that fever is not a conservative process, but on the contrary that it is a destructive process. In view of this fact it has been my habit to control fever and its manifestations. For 8 years it has been my habit to control the temperature in typhoid fever by what we call the coal tar products. I give them when the temperature seemed to approach the dangerous point—104.5° F. In these cases I began to use phenacetin in 10 grain doses. Observing what I believed to be the useful influence of that remedy I gradually extended its use. Four years ago I began to use it systematically. Since that time I have used it in 81 or 82 cases, with but two fatalities, showing a death-rate of about 2½ per cent. In all those cases I have used phenacetin systematically, and have controlled the temperature, in almost every instance keeping it below 103°, and frequently below 101°. To do this I have given doses frequently—every 3 hours—giving all the way from 5 to 10 grains. I have given as high as 120 grains a day, in cases of typhoid, for 10, 12, or 15 days continuously to the end. In all these cases I have never witnessed any depression of the heart's action. You maintain the heart's action by reducing the temperature. We all know that high temperature exhausts the heart muscle, when by reducing the pulsations to 75 or 80, we give the heart a great deal of rest. In this way you also maintain the appetite and the power of the patient for digestion and assimilation of food. There is one positive contraindication to the use of phenacetin—the diminished oxygenation of the blood; and we see in croupous pneumonia a contraindication. The diminished capacity of the kidneys is also a contraindication. In such cases we should use it carefully. With these exceptions I know of no other contraindication to the careful use of phenacetin. I remember two years ago I was called in consultation with a member of this Society. The patient's pulse was about 120, and he was suffering from violent delirium at night. The physician with whom I was called expected the patient to die in two days. He said he had used phenacetin, but it was discontinued. He feared that 2½ grains would result in heart failure. I suggested 10 grains, but finally compromised on 7½ grains. In 24 hours we got the patient to sleep, and in 48 hours there was a decided amelioration of the symptoms. Instead of a pulse of 120 it came down within 24 hours to 100. I speak of this particularly, because my own observation indicates that phenacetin is very important in maintaining the action of the heart in typhoid fever.

Dr. Strader: I think typhoid fever is more under the control of medical men than ever, especially in view of the fact that Woodbridge has given a line of treatment which, in my opinion, is very beneficial. I know that in my own case I was very materially benefited by phenacetin.

Dr. G. C. Simmons: As Dr. Briggs has used large doses of phenacetin in cases of continued fever, I would like to ask if it increases the danger of hemorrhage?

Dr. Briggs: It diminishes the tendency to hemorrhage by maintaining the nutrition of the patient, and also by producing resistance to the ulcerative process. In my own experience with this class of cases I have had only two in which there was hemorrhage, and in only one was it of any importance.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, December 8, 1896.

The President, F. B. Carpenter, M.D., in the Chair.

Dr. S. C. Mish read a paper upon "Digital Curetting of the Puerperal Uterus."

Dr. G. F. Shiels: No one can doubt the great value of the unarmed finger or even with one armed with a thimble, in general and especially in uterine surgery. I cannot conceive that with the arch of the thumb, as I might call it, on the pubes, how one can reach the fundus of the uterus after the third or fourth month of pregnancy. We cannot do so even in the first month. The finger is useful, but it is not practicable in all cases.

Dr. J. McCone: I quite agree with Dr. Shiels that curetting the uterus with the finger is, in many cases, impossible. The usual period for abortions is about the twelfth or sixteenth week, when the uterus is five inches in length. Even should we introduce the entire hand into the vagina we would then only have a three and a half inch finger to curette a five inch uterus. In some cases there is not sufficient dilatation to admit the finger. Again, the vaginal canal is small and the perineum tense, as many of these abortions are first pregnancies. I have tried to curette with the finger, both with and without anesthesia, and have always found it difficult, if not impossible. The finger is a very sensitive organ and, if long enough, would answer admirably. There seems to be a great outcry about the sharp curette. The author claims that it will open up the sinuses to infection. The fact is, that the contraction of the uterus brought on by the curette closes the sinuses and "hungry lymphatics" instead of opening them. The difficulties in the treatment of abortions is often the method of curetting. Many only scratch lines in the placenta instead of drawing it out with a thorough curetting and a properly bent curette. In any case it is not a good idea to use the finger in the uterine cavity, particularly the finger nail. Welch, of Johns Hopkins, finds it impossible to sterilize the finger nails. It simply means using an out-of-date instrument. Up to four or five weeks, it no doubt, is easy to do it, but at three or four months it is impossible I think it is wrong to use a 5 per cent. carbolic acid solution in the uterus; it is too strong, and I would ask Dr. Mish, if, in his opinion, it was the retained membranes or this strong carbolic solution that caused the death of the patient? Many operators have given up even a strength of four or five thousand corrosive sublimate solution as a uterine douche. As to detecting a fibroid, I do not think there would be any difficulty; one can distinctly feel the peculiar hardness with the curette.

Dr. W. F. McNutt: Dr. Mish seems to report these cases as a fact, that four weeks after an abortion the finger is introduced and the membranes and placental tissues shelled out. Now I have attended a great many cases of this kind and have had a great deal of experience, and I never met a case where, five weeks after an abortion, and without chloroform, the finger can be introduced as a curette. The finger, of course, can, under chloroform, dilate the cervical canal when well brought down. A quicker and better way, however, is to use the dilator and to curette thoroughly.

Dr. A. Liliencrantz: It has always been my practice, when there has been anything remaining within the uterus after an abortion, to dilate, and with a dull curette and douche, clean out the uterus thoroughly. If this can be done without chloroform, well and good; if not, use it. The finger can be used as a means of diagnosis, but it should be absolutely sterile. Every physician in practice must do this kind of work and should be supposed to know what constitutes surgical cleanliness, but there are a great number who do not, and I would not care to have their hands in any operation of mine.

Dr. H. Kreutzmann: As Dr. Shiels has said, the finger is the best instrument we possess, but we cannot confine ourselves to it alone. The finger may be used to dilate the cervix when some time has elapsed after the abortion, but it would be hard work to reach the fundus in a great many cases. In expert hands the curette can be used with as much certainty as the finger, that is, as to feeling any irregularities.

Dr. W. S. Thorne; I pity the intelligence of any operator who cannot make out any excrescence or irregularity within the uterine cavity. I have watched some of my professional brethren curette the uterus, and they dug around as if in a potato patch. This is all wrong. The curette should be used like a probe, and with the greatest delicacy and care. As to removing the placental tissue from the uterus by means of a finger, I think, after an experience of 30 years, that we can rarely succeed in doing so. The curette and chloroform are the best resources.

Dr. C. G. Kenyon. The idea of using the finger seems proper, but to me it runs counter to many years of practical experience. It is practically impossible to use it in the manner that has been described. The curette is easily sterilized, and in the hands of an experienced man should act as a means of diagnosis.

Dr. W. F. Cheney: I have never succeeded in introducing the finger into the uterine cavity in the manner stated by Dr. Mish. The arguments of Dr. McCone are the sum and substance of the matter. If we have to clean out the uterus during the earlier months, the cervix is not sufficiently dilated, and if at full term, or nearly so, the finger is not nearly long enough.

Dr. C. G. Kuhlman: Premature delivery and its treatment is as old as the human race, and it was handled by men long before instruments were brought forward. The author certainly had a great believer in the finger in such cases, and that was Scanzoni, who, prior to 1856, was the leader in his profession in Europe, and who also had a vast and lucrative practice. He was opposed to the curette, and his operations antedated chloroform. We can all agree that it is quite impossible to introduce the finger into the virgin uterus, but I certainly think it is possible to do so at the second or third month of pregnancy, especially if chloroform be used. We can then secure complete dilatation, and can not only insert the finger, but in some cases the whole hand. I am opposed to the sharp curette in septic conditions; and both the author and the gentlemen who have preceded me in the discussion have failed to mention why. Nature in these cases throws out a granular wall which prevents the absorption of septic material. This the sharp curette removes. The dull curette in experienced hands is practically safe at all times. The finger, if it could be used at all, would be safer and easier.

Dr. Mish: There is some misunderstanding as to some points in my paper. In cases of incomplete abortion if I can remove the secundines with the finger I do so, if not, then by the curette. I also use it as a means of diagnosis. Regarding the cause of death in this case, I will say in reply to Dr. McCone, that the woman had been curetted eight or nine times by the so called "Doctor," and at the autopsy a hole was found in the fundus which had been made by the curette. As to the case of intra-mural tumor, it was covered with placental tissue, to continue curetting which would have resulted badly. Personally, I use the curette more frequently than the finger, but when I can use the finger it is best.

Dr. D. W. Montgomery read a paper upon "A Case of Brain Syphilis."

Dr. Leo Newmark: Cerebral symptoms appear early after syphilitic infection, and it is now recognized that they may appear within a year. An autopsy shows degenerated arteries, and this arterial degeneration is highly important, for when the arteries are diseased the patient is practically an old man. We have often heard the adage, "A man is as old as his arteries." Degeneration of the central nervous system is more amenable to treatment, but when there is a syphilitic degeneration of the arteries the man is doomed—not, perhaps, to die soon—but such a patient is certainly a poor insurance risk. Specific treatment does not seem to have much action upon the nervous system. I have under my care at present a patient who, in one year from infection, developed a total paralysis, pointing to a lesion of the medulla oblongata, in spite of very vigorous treatment, as much as 90 grains of potassium iodide being taken daily. It is now fairly well established that early and energetic treatment before the early symptoms appear, does not guarantee immunity from subsequent involvement of the cord. This fact should not cause us to neglect to do the best we can as to treatment in these cases. There are certain forms of focal epilepsy—Jacksonian—due to gummata in some part of the brain, of which Dr. Montgomery did not speak, but to attribute all such to syphilis would be a gross injustice, as other causes, such as lead and alcohol, may produce them. When you have general epilepsy associated with syphilis, I do not think that specific treatment has much effect upon them.

DR. G. F. SHIELS: I believe that syphilis is altogether too freely blamed. In many diseases where no cause is known the trouble is attributed to syphilis. Secondary syphilis is a much abused term. Endarteritis obliterans is not in this class. If it were in this case the secondary symptoms passed by very rapidly. Syphilis ceases with the secondary symptoms. Subsequent lesions are the tertiary sequelæ—the granulomata. The speaker inquired whether Dr. Montgomery regarded endarteritis obliterans as a symptom of secondary syphilis.

DR. C. G. KUHLMAN: Cerebral symptoms in these cases are the exception rather than the rule. A case that came under my care when in the East was that of a man 21 years of age. When first seen he was syphilitic, with large cervical and inguinal glands. I lost sight of him for six months, at the end of which time the glandular swellings had disappeared. Six months later he became insane, and the glands were found to be again swollen. I concluded he was suffering from specific cerebral lymphangitis. There was a local pressure on the brain, as shown by the continuous contraction of a certain set of facial muscles. I finally succeeded in putting him upon anti-syphilitic treatment, which restored his reason in five months, and cured him in eighteen. Syphilis does not produce epilepsy, and no authority says so. The epilepsy in Dr. Montgomery's case was a masked epilepsy caused by the irritation of the mercurial treatment.

DR. W. F. MCNUTT: I understand that this patient is now in good health. From the history of the case is it not possible that it may have been one of pachymeningitis?

DR. C. G. KENYON: The author speaks of this woman aborting because of her syphilitic husband. A woman who had contracted the disease might abort, but I hardly think she would do so because the husband had once been syphilitic.

DR MONTGOMERY: As to the nervous systems, Bristow taught that everything came from "catching cold." Erb, too frequently attributed ataxia to syphilis, every sore being called syphilitic. Now-a-days many diseases are said to be tubercular, when they are not. Dr. Shiels thinks that gummata are sequelæ of syphilis. This is not so. They are a local manifestation. There is a peripheral extension, and the individual lesions are foci of a coagulation necrosis. That no syphilitic germs are present is not a reason that there are none. We all know that microörganisms change their nature, and that they do not always remain the same in syphilis. As to this case having been a pachymeningitis, that is what was discussed when the case was seen with me by Drs. McNutt, Chismore, Bazet, and Martinache. There was a case of pacchymeningitis at the hospital very similar to this, except that it went on to total paralysis. In reply to Dr. Shiels, I may say that syphilis cannot be minutely subdivided. Two days ago at the Polyclinic I saw a small papillary syphilide. This was a secondary symptom. One of the papules was removed, and, upon microscopical examination, was found to be composed of a collection of miliary gummata. A gumma and a papule are not so far apart.

DR. W. F. MCNUTT exhibited a fibroid tumor of the uterus, also a uterus removed *per vaginam* for complete procedentia. The whole uterus and vagina were outside the body. The vaginal mucous membrane was hardened and thickened from an exposure of 18 months. The uterus was removed and a piece taken from the anterior and the posterior wall of the vagina. The patient left the hospital 14 days after the operation. The speaker also exhibited a specimen of primary cancer of the liver. The liver was completely infiltrated. This is not common. During life the liver felt so smooth and uniform that he had questioned whether it might not have been a "whiskey liver."

DR. J. COPLIN STINSON exhibited an ovarian cyst, with tube and tubo-ovarian abscess, and reported the same. [Published at page 71.]

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, September 19, 1896.

The President, J. M. WILLIAMSON, M.D., in the Chair.

Severe Freckles.—DR. D. W. MONTGOMERY exhibited and reported a severe and extensive case of freckles. The patient, a girl, resided in Arizona, from whence she had been sent to consult the speaker. The child was very susceptible to the heat and sun, and in Arizona, even in the house, she would freckle and begin to burn. Here it was not so, as the sun was not strong. The child has to wear thick clothing, as the sun's rays seem to pass through thin goods. The trouble is not congenital. The parents are fair-skinned, and a smaller sister is fair and is tanned but slightly. This case is different from the usual run in that the patient has dark hair, freckles usually occurring in red-haired people. The child is perfectly healthy otherwise, and there is no internal cause for the trouble; it is simply a vulnerability of the skin itself to the sun's rays. The idea of treatment must be to protect the skin from the sun's rays. Wearing a mask is out of the question, and there is no ointment that can nullify the actinic rays on the skin. There are many remedies for freckles, the principal one being bichloride of mercury, which, by blistering the face, we can get some effect from, but here it would not do.

DR. J. D. ARNOLD mentioned a case, also from Arizona, where an ointment of starch and rice flour was applied thickly and acted as an artificial covering, giving great relief, but not curing.

DR. W. F. MCNUTT thought that some tanning process would do, as tannin and diluted alcohol, for instance.

Practical Value of Bacteriology in Quarantine Work, was read by DR. M. J. ROSENAU, Past Assistant Surgeon United States Navy, in charge of the National Quarantine Station, at Angel Island.

DR. D. W. MONTGOMERY: We can all recognize the value of quarantine service in a seaport town like ours, exposed to the world. Without eternal vigilance, disease would stalk rampant and we should be thankful to the United States for the establishment of such quarantine stations and for such an active and intelligent quarantine sentinel at our gates.

DR. E. E. KELLEY: The medical profession seem now to be awake. Dr. Rosenau and his comrades have demonstrated to the most skeptical the value of isolation and quarantine.

DR. W. F. MCNUTT: I appreciate the value of quarantine to the etiology of disease. Cholera is the greatest proof of the value of bacteriology. In 1846, an army surgeon, Bryan, recommended boiling water, and his confreres recommended court-martial. The government stops disease at the port.

DR. G. W. GROSS: Is not typhoid fever transmitted through the air?

DR. ROSENAU: The habitat of the bacillus renders that extremely unlikely, as it is short-lived and susceptible of desiccation.

DR. MONTGOMERY cited a case of, practically, a transmission through air, where typhoid was set up in people occupying rooms in a house that was over an old drain.

DR. ROSENAU: This is an interesting phase of the question. It has never been proven that the organism does not live in air. Sanitary conditions play an important part in the prevention of disease. Natural immunity is lessened by non-hygienic surroundings.

DR. MCNUTT asked if there was any chemical or microscopical change in immunized blood.

DR. H. B. A. KUGUELAR: I was in Germany during the cholera epidemic. I remember the case of a boy who fell in the cholera-affected water and three days after he died of cholera.

DR. ROSENAU: By request I spent four months examining for typhoid in this city, and I also examined the water supply. The water supply is not free from suspicion. Crystal Springs are free from contamination, Pilarcitos and San Andreas are not so. They contain the colon bacillus. These live in the intestinal canal and should not be in water. It is difficult to find the typhoid organism in water. There is a relation between typhoid and the rainfall; for after the first heavy rains there is a rise in the death rate from typhoid. The speaker then gave a brief description of the disinfecting station at Angel Island, and invited the members at any time to inspect it. Steam heat was mostly used—baggage and Chinese are thoroughly disinfected; "the Chinamen are sterilized."

Regular Meeting, December 19, 1896.

The President. J. M. WILLIAMSON, M.D., in the Chair.

Removal of Uterus and Appendages for Suppurative Disease.—DR. H. KREUTZMANN exhibited the specimen of a uterus and appendages removed for abscess, there being a typical pyosalpinx and pyoövary. The operation was done by the abdominal method, but as some pus escaped, it was thought best to drain through the vagina. The speaker said both the vaginal and abdominal methods of hysterectomy had their advocates, and both their advantages, but the vaginal route, all things considered, was the best. With vaginal hysterectomy there was no scar of the abdomen, and then it is much safer. In operations for the removal of the ovary or tubes in young women, it is always advisable to leave an ovary or a piece of one, if healthy and active, for by this means the change of life does not occur at once, as in total removal. In older women this is not of such importance. Where extensive inflammation or vesico or recto-vaginal fistulæ exist, the operation is best done by the vagina. I am opposed to a set rule as to which operation we should do; we should operate according to the conditions found in the case. The question is often asked, "Shall we remove the uterus when we remove the appendages?" I do not think so. We should leave the uterus behind, when we can do so. If a tube or an ovarian abscess should break during its removal and pus of some unknown activity escape, it is best to remove the uterus. The fear of a fatal issue from the pus is not as great as that of a so-called "stump exudation," where non-absorbable ligatures are used. Lately I have used catgut, prepared by the steward of the German Hospital, who is a very active worker in that line. I think he has prepared some according to a formula in a late number of the *American Medico-Surgical Bulletin*.

DR. A. L. LENGFELD: It has been suggested to boil it without disintegration, we can be sure of its being sterile. The boiling of silk in soda robs it of 25 per cent. of its strength.

DR. KREUTZMANN: There are a dozen different methods of sterilizing catgut. Lately I feel satisfied that the method of dry sterilization meets the requirements. There must be two points attended to: (1) The catgut should be absolutely aseptic and non-irritating. (2) It should be reliable as to strength. This morning I used in a laparotomy catgut preserved in formalin. I think the method was to leave the gut in a 4 per cent. solution for a length of time, and then boil it. It seems that the point in this process is to stretch the gut on smooth glass plates while boiling.

DR. J. F. MCCONE: That is Senn's method, I believe.

DR. H. M. SHERMAN: I do not have to use much suture material in my operations. Generally in osteotomies, no very large vessels are encountered, a hemostat clamped on for five minutes generally suffices. As to suppuration from catgut, I can say that I never encountered any as resulting from the prepared gut bought in the open market.

DR. KREUTZMANN: I do not mean that the silk sutures used were the foci of infection, but that, acting as irritants, inflammation and pus were attracted there

DR. SHERMAN: Will silk ever be absorbed?

DR. KREUTZMANN, In some cases, no doubt, but I reported a case and exhibited a specimen before the County Society, of a uterus and part of the abdominal wall united by silk three years before, for a ventral fixation, where the sutures were still *in situ* and of good strength. Silkworm gut so much in vogue some time ago in New York, is non-absorbable. We can make catgut practically non-absorbable with chromic acid. Years ago alcohol and carbolic acid were used to sterilize catgut, but it was found that the gut was full of bacteria, and Kocher found that anthrax was carried to a patient by this means.

DR. D. W. MONTGOMERY: The ordinary pyogenic staphylococcus causes pus. In impetigo contagiosum we cannot find any other microörganism than it, but the disease acts as an independent process and there must be another microörganism doing the work. If we know in skin diseases of a pus producer, and cannot find it, there may be other pyogenic bacteria not yet discovered. It is almost impossible to sterilize the hair and skin in skin diseases.

DR. SHERMAN asked if any member had used acetanilid in surgery as a preventative of suppuration. On account of its great insolubility, it would be hard to use.

Dr. Montgomery: As an antiseptic for pyogenic processes, strong solutions of bichloride in 50 per cent. alcohol are among the best for the skin. I use them and over large surfaces and never have absorption of which so much is spoken. In one case where I was giving 5 protoiodide pills a day, a strong bichloride lotion was given to apply to some papules on the scalp. Through a mistake the patient rubbed it over the entire body without any bad results.

Dr. J. F. McCone asked if any one present had seen new growths occurring in the scars after laparotomy.

Dr. Kreutzmann mentioned a case of keloid in such a scar. For some pain the woman was given a hypodermic injection. The needle was not aseptic, an abscess resulted, and after opening this, a keloid formed. This was, later on, cut out, when it promptly returned.

Dr. Montgomery: Such things do happen. I have seen a case in a sailor who was stabbed in the arm, one-half of the resulting scar was keloidal and the other half normal scar. I suppose the keloid occurred on the half that suppurated.

Dr. Kreutzmann: This case was similar. Drainage was used at the lower end of the wound, and that was where the keloid developed.

Dr. McCone said: In the case seen by me, the growths are upon the scar and do not involve the uterus. They are, no doubt, sarcomatous, and the woman is dying.

Dr. Montgomery: I remember a case of carcinoma developing in a scar. When the patient was a boy, he was burned on the right side, leaving a parchment-like scar. He had an ulcer over the biceps and several years ago Dr W. E. Taylor did skin grafting and the skin remained sound for seven years, when it broke down and formed an ulcer, an epithelioma. The case went from bad to worse and a quack got hold of him. A "remedy" was applied to the growth and the brachial artery was beneath. There was bound to happen one of two things, either the brachial or one of its branches would be burned into; the former was the case, and his family doctor was hastily called, and the following day the arm was taken off at the shoulder, by Dr. R. A. McLean, there not being enough tissue to permit simply excising the neoplasm, as the arm was small.

Regular Meeting, January 16, 1897.

The President, J. M. Williamson, M.D., in the Chair.

Syphilis in the Aged.—Dr. D. W. Montgomery demonstrated the following case: The patient, a man, 73 years of age, came to the Polyclinic on December 31, 1895, with a papular rash on the face. This eruption was of such a nature as to give rise to suspicion at the first glance, and a further examination showed a papular-squamous and roseolar rash on the body and limbs. There was an induration at the meatus urinarius. One lymphatic gland was enlarged. He had had connection three months before, but said he had no reason to suspect the woman was diseased. Two weeks before seeing me—that is, 2½ months after connection, he had first noticed there was something wrong about his penis. In speaking of his early life he said that when a young man, 50 years ago, he had had a venereal sore on the penis with a suppurating gland in the groin, which his doctor had told him was "pox." He took bichloride of mercury for several weeks at that time, and did not remember having had any subsequent symptoms. This, of course, was probably a chancroid. He afterwards got married, and his wife bore him three children; the two oldest died from some unknown cause at 9 and 10 months respectively The youngest lived till 32 years of age, and then died of the morphine habit. His wife had had several non-induced miscarriages, but the patient was unable to say when these miscarriages had taken place. Just where old age begins is a mooted question. Some place it at 50 years, others at 55 years of age. Sigmund held in his treatise, in 1878, that syphilis in old age was a milder disease than in adult life. Other authors have, however, differed from this and say it is more severe. In my personal experience of this and several other cases the disease has almost always run a comparatively mild course. My experience has been mostly with ambulatory cases—that is, cases that come to the office and clinic, and not hospital cases. Neurological cases go to the neurologist, internal cases to the internal medical clinic, and so on, so, as I see for the most part only those able to go about, my mind may be biased. There is certainly a difference in old age, as the "good, ripe old age," and the old age brought on by improper and insufficient food and alcoholic dissipation in men who have abused themselves in general. Such are the cases seen most frequently in the free hospitals. The case shown is a typical illustration of old age, and is not a mere wreck. Quinquand and Uhlman, in 1889, have shown that the gravest accidents can occur during the course of syphilis. So, if an old man gets syphilis and has a cerebral accident, it would be hardly fair to ascribe it to that disease, because of the frequency of such accidents in old people who have not had syphilis. Another error is that the neurologists only see the neurological cases. Syphilis of the brain is far more severe than of the skin where a gumma would give but slightly more trouble than a boil. There are interesting points in this case. The primary lesion was retarded from five or six weeks instead of the usual two or three weeks. This seems to indicate that the bacteria do not find as good a feeding ground in old tissues as in the young, and the induration is still present. The gland involvement was also slight, which is quite consistent when we remember the lazy lymph stream of the aged. The rash also is late, and we are not so prone to get the roseola, but it can be brought out by a cold bath, or stripping the patient in a cold room. Neurologists say many cases attack the brain in old people, but, as I said, old people are liable to brain trouble anyhow, so that cannot always hold. I have had several cases; some amongst old women who did very well, and in one old man with syphilis of the tongue, which as a rule is severe, there was an exceedingly easy recovery.

DR. J. D. ARNOLD: One point that the doctor spoke of before the meeting was that in this case there was an apparent history of a former invasion 50 years before. Might not this have been a second attack, which would account for its mildness?

DR. MONTGOMERY: Fifty years is a long time to remember. The patient had a suppurating gland, but says there was no sore on the penis. His attending physician said it was "pox," and after a short course, during or since which time no other symptoms developed, he gave up treatment.

DR. G. F. SHIELS: Syphilis is an arch imitator, and there is no doubt that neurologists as well as others make the mistake, when they get to the last point in the diagnosis, of assuming that a case is syphilitic and giving potassium iodide on general principles. We cannot gain much from neurologists as to syphilis, for often without a history of syphilis they will lay a disease to it. Almost all of these symptoms are, as I have always maintained, post-syphilitic, and not gummatous at all. I cannot agree that syphilis in the aged is a mild disease. My experience, limited though it may be, shows it to be far from it. While in Scotland, in 1882, working with McLaren in the "Lock Wards" (so-called from the inmate being segregated from the others), of 60 beds, 30 male and 30 female, an old man came in with a true Hunterian chancre on his penis, and he was covered with a diffuse maculo papular rash. He had all the appearances of an acute exanthema, high fever, secretions stopped, etc., and he died quickly. Another man, between 65 and 70 years, came into the hospital, and while there had a late pustular rash. Suddenly he developed a degeneration of the parietal bone, meningitis set in, and the patient died. These cases do not look as if syphilis of the aged is a harmless affection. I cannot conceive how any disease can be mild in old age. The tissues are degenerated, and even the insurance companies do not take these risks, so we should not consider them safe. Dr. Arnold has brought out a good point—that is, that this may have been a second infection, and as such a light one. We know that a patient may get two attacks. Another point: Dr. Montgomery speaks of bringing out an old rash by a cold bath. I always thought it should be a hot bath.

DR. MONTGOMERY: A cold bath is used on the continent, I believe.

DR. J. H. BARBAT: I have one case in mind now that bears out Dr. Shiels' remarks as to syphilis being far from an innocent disease in the aged. Three years ago a man, 60 years of age, was sent me from the country where he had been treated for 8 months. He denied any syphilitic history, as he was a married man, etc., but very shortly he developed a gumma on the tibia, which disappeared under treatment of potassium iodide, and mercury. A year ago he developed a violent attack of syphilis of the brain and was very sick, being delirious for 30 days. After an energetic treatment by iodide, an ounce a day, he came to terms and recovered.

Dr. Arnold: A year ago I had a case of a man, 60 years old, who had his first chancre. The mucous membrane became involved quickly, as did the bones and then the brain, and the attack was rapidly fatal. This idea of the severity of syphilis in the aged can only be proven by cases observed. As Dr. Shiels said, we would think that it should run a much severer course in the aged than in adults; and then there should always be the suspicion that the patient may have become syphilized earlier in life. I have now a case in a man 43 years old, who gives a history of a chancre two or three years ago, and who now has a chancre of the soft palate. It is typical and there can be no mistake, as the patient belongs to the class that do not believe in mock modesty and give clear histories. I am anxious to see just how this attack progresses, for if he was immunized by the previous attack, this should be a very mild one.

Dr. Dudley Tait: I must congratulate Dr. Montgomery upon this case which has been presented in his usual clinical mode of presenting cases. The analysis of a single anomalous case by him is more instructive than a lot of tabulated reports. I am surprised to hear him say that such cases run a mild course. Fournier and others have stated, in interesting theses, that syphilis in patients over 50 years of age is very grave. We probably find in old people more extra genital chancres than in the younger. This is explained by the fact that old men, especially in large cities, deviate from the natural modes of intercourse. The children of syphilitics are, to a certain extent, immunized, and if they contract it later, it is lighter than usual. If this is true, it does not last forever. I must differ with Dr. Shiels when he says that neurologists have not been of much assistance to us in the diagnosis of syphilis. The data on tabes, by Fournier, are not to be thrown away. I am surprised at the large dose of iodide spoken of by Dr. Barbat; a drachm has always seemed to be a pretty good dose. My experience of syphilis in the aged has been limited in private practice to three cases. The first was that of a man, 60 years old, who contracted the disease from a woman during her tardy secondary symptoms and while she was under an energetic course of treatment. He suffered very little, had a mild roseola, small glandular enlargement, and three months afterward gave up the treatment. The second case was that of a Chinese merchant, in poor hygienic surroundings, who contracted syphilis from a white girl who had had no treatment. From the start his sore was severe, so much so that he had to take to bed. Besides the intense secondary symptoms, osteo-periostitis of the skull and of both tibias set in five months after the initial lesion. Inunctions seemed of no avail, and only after the injection of some serum from a patient who had suffered from syphilis, did he improve. The third case was a man, 45 years of age, who got syphilis from a girl under treatment. In the eighth month a periostitis of the rib set in. I have alluded here in these cases to the contaminating source; there seems to be a law that persons contracting the disease from a malignant case will obtain a malignant type. I would like to report a rare case, or rather a rare infection, though I may be mistaken, of an intra abdominal chancre. A woman, upon whom abdominal section had been performed, had a small sinus into which, after some time, a lady friend used to introduce a small gauze strip by means of a piece of orange wood, such as manicures use. This, the lady friend used to shave down with a knife and then place between her lips while she prepared the gauze. Soon lumbar tenderness set in and the woman went through a typical course as to the skin symptoms. The sinus, which, notwithstanding curetting and other treatment, had remained open, now closed. The case may not have been one of true chancre, but the symptoms pointed to it. Relatives said that this friend had been treating for syphilis.

Dr. Montgomery: The weight of evidence seems to be that in old age syphilis is severe. The fallacy lies in the presence of arterial degeneration and in taking old broken down hospital cases as a basis, instead of normal old age. As I said, mild cases may be due to second infection, and as such should be light. There are a number of infectious diseases that are, in some children, more severe than in the adult. Microbes find but poor feeding ground in old tissues. My cases were merely ambulatory cases or those that could come to me, and this must be taken into account. Dr. Tait's case is an extremely interesting one. In all probability the chancre did occur in the fistulous tract, and the lumbar pain was from the involvement of the lumbar glands.

DR. SHIELS: Dr. Tait misunderstands me. I did not say neurologists taught us nothing, but I do say, that in obscure cases, they always blame syphilis. I am surprised at Dr. Montgomery's statement as to children's infectious diseases being more severe in them than in adults. It is the other way; for instance, measles is considered far more severe in adults than in children.

Appendicitis with Enterolith Simulating a Grape Seed.—DR. J. H. BARBAT exhibited a specimen of an appendix which contained a grape seed looking enterolith. The appendix itself was gangrenous and its mucous membrane was entirely destroyed. There was some of the peritoneum gangrenous and a piece of the omentum passed around the cecum to the brim of the pelvis. The conditions were so bad that the wound was packed, but the case is now doing nicely on the seventh day. On first glance at the enterolith it so much resembled the historic "grape seed," that I thought I had struck it; but it was not so.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, Monday, January 4, 1897.

G. W. HUBBELL, M.D., in the Chair.

Fracture of Patella—Bony Union without Operation.—DR. EMMET RIXFORD presented a case of transverse fracture of the patella, in which bony union had been secured without operation. The patient, a man about 50 years of age, fell from a step-ladder, striking, as nearly as he could remember, on his kneecap. Judging from the man's account of this accident, and from the fact that there was at the time of examination a very extensive ecchymosis about the knee, it is probable that the fracture was due to direct violence. The fragments were easily approximated and held in position with a figure of eight bandage one inch wide, and a modified Agnew splint, the bandages being applied wet to prevent slipping. Because of the excessive effusion of blood the dressing was changed daily for the first week to avoid pressure necrosis of the skin. At the end of six weeks passive motion was begun, and in a few weeks the patient could use this injured limb as well as the other. The patella united by complete bony union, and the knee seems as strong and with as great a range of motion as ever. The patient has no difficulty in walking, running, or in going up or down stairs.

Ischiopagus.—DR. A. ABRAMS presented this case together with radiographs, showing, that on the double side, the man had two femora and two acetabula. On the short, bent, useless and deformed foot there were six toes. All joints could be voluntarily and freely moved. The patient earns a living by exhibiting himself in a museum.

Gastrostomy, with a Report of Two Cases.—DR. C. N. ELLINWOOD read a paper entitled "Gastrostomy, with a Report of Two Cases."

DR. EMMET RIXFORD said that he had assisted in both of the operations reported, and had been much interested in them. He could add but little to what had been said, but he would speak of a few points in the *technique* of the Witzell operation. The operation presents no very great difficulties in an ordinary case. In the first of these two cases, however, the stomach was so thoroughly contracted that there was some difficulty in folding its anterior wall around the tube. Because the adhesion of the serous surfaces is intended to be permanent it is best to use a non-absorbable suture. Fine silk answers well to close the artificial canal at the stomach end; it is best to pass a suture in such wise as to completely surround it, *i. e.*, at the end of the row of Lembert sutures as described in the account of the operation, which do not satisfactorily close the canal. Continue the needle in the muscular layer of the stomach till the extreme opposite point is reached. This suture will effectively pucker and close the end of the canal. At the outer or free end of the canal the stomach should be stitched with fine silk to the parietal peritoneum through the whole circumference about the tube. By this the peritoneal cavity is completely cut off from contamination by infectious material which may be vomited out of the stomach alongside of the tube. A catgut stitch passing through the rubber tube and the wall of the stomach will prevent the former from slipping either in or out for a number of days, when by the absorption of the gut it will be so freed that it can be removed for cleansing and be replaced without difficulty. It was to be regretted that the man had waited until he was nearly dead before giving his consent to the operation. The operation had been advised some three months before, but the patient refused.

CORRESPONDENCE.

The Advantages of Phonography for Physicians and Students.

Sir—Permit me, through the columns of your valuable journal, to call the attention of my medical brethren and those about to study medicine, to the great assistance afforded by a knowledge of phonography in our daily work. By its use we are enabled to record in a clear, concise and readily available form the knowledge gleaned from books, magazines, lectures and observations of the cases coming under our notice, in a more legible style and in far less time than by the employment of the ordinary longhand. Experience has shown that the daily habit of note taking in an intelligent and systematic manner, strengthens and quickens the observing and retaining powers of the intellect, thus enabling us to grasp and keep the information that lies within our reach. Many a useful bit of knowledge has been firmly fixed in the memory by the impression made by the effort to execute the observation in writing. There are medical men who keep full notes of their cases, but there are a greater number who do not even make an attempt to do so. To those who do, phonography would still further increase their power in this direction, by rendering the recording easier, shorter and less tiresome, enabling them, in fact, to do more and better work in one-third the time it now requires. Of those who are not note takers I am confident the majority would become so, when once cognizant of the advantages to be derived from the "winged art." A medical student writing shorthand can take fuller notes of lectures and operations in the college and in the hospital and have have more time for observation than his classmate who usually spends the whole time devoted to the lecture in trying to write down the briefest notes, representing in many cases but a small portion of what the lecturer wishes to convey. That phonography is not in common use by medical men is due, I think, in many cases, to misconceptions concerning the time and exertion required to master it and its utility when acquired. There is abundant evidence that anyone who can read and write the English language, can by devoting one hour a day to the study and practice of phonography for three months, become sufficiently proficient to write it three times as fast as he can longhand and with greater legibility than the average doctor's penmanship. After this time every word written adds to the writer's ability, both as regards speed and accuracy. As to its ability, I think it will only be necessary to direct attention to the work of "The Society of Medical Phonographers" of London, to demonstrate its practicability and advantages in everyday work. This Society has been in existence only a little more than two years, yet in this short time it has gained nearly three hundred members, one or more of whom can be found in every quarter of the world. "The object of the Society," as set forth in one of its publications, "is to promote the use of phonetic shorthand in medical work, on account of its value as a means of securing adequate record of facts, as a means of intercommunication, and facilitating in other ways professional and scientific work." Among the means adopted for this object, are: The publication of a monthly periodical, in lithographed shorthand, "The Phonographic Record of Clinical Teaching and Medical Science," and the issue of other publications, in shorthand, designed to increase medical knowledge, and familiarity with shorthand. The President of the Society, Dr. W. R. Gowers, tells me that he has used phonography for more than 30 years, and that it enabled him to write his Manual of Nervous Diseases, which is based on shorthand notes of 20,000 cases. The Hon. Secretary, Dr. J. Niel, Warneford Asylum, Oxford, England, will forward printed matter relative to the use of shorthand by the student and practitioner upon request. I shall be happy to correspond with any of the readers of your journal who may feel interested in this subject. I am, etc., ERNEST PRING, M.D.

3003 Fillmore street, San Francisco.

OBITUARY.

DR. FRED. W. BIRDSALL.

DR. FREDERICK WHEELER BIRDSALL was born at Sacramento, California, August 12, 1867, where he received his early education and grew to manhood. He was the eldest son of F. Birdsall, a pioneer resident of the State, among whose properties were large irrigating and mining interests in the county of Placer, and to the management of which the son devoted himself, ultimately becoming Superintendent of the entire water system of the town of Auburn, besides of other interests of the company throughout the county. During his residence in Placer county, there was no man better known and none more highly esteemed. either in business or social circles, and when he finally left Auburn, in November of 1890, to take up his studies in the profession he had long desired to enter, he carried with him the affection and well-wishes of every member of the community. He began the study of medicine in February, 1891, at the Medical Department of the University of California, but remained only one year; he then continued his work at the Northwestern Medical College of St. Joseph, Missouri, graduating with the degree of M.D. in 1892. Immediately after graduation, Dr. Birdsall proceeded to New York City, and became House Surgeon at Chambers Street Hospital, where he enjoyed a valuable experience during his five months' service. From there he went to Philadelphia and spent the term of 1892–3 at the University of Pennsylvania, pursuing a post-graduate course. He then came directly to San Francisco and began the practice of his profession. He encountered the usual obstacles found in the path of a young practitioner, but maintained his dignity and his cheerful optimism in the face of all difficulties, with the brave spirit worthy the emulation of all young medical men. He never swerved a hair's breadth from his determination, to practise the art of medicine earnestly and honorably, and with a firm regard for professional ethics and a kind consideration for his fellow practitioners, which, unfortunately, is growing rare among the fraternity. He was interested in the progress of medical and surgical science, and though he had not yet begun to contribute often to its literature, he read and digested the recorded experiences of others, and attended faithfully the conventions of medical men for medical improvement. He was a member of the Sacramento Society for Medical Improvement, the San Francisco County Medical Society, and the State Medical Society. Besides his professional connections, Dr. Birdsall was an enthusiastic and prominent Mason, a Knight Templar, and a Shriner, and was a member of the Cosmos Club of San Francisco. Dr. Birdsall had just begun to gather about him a comfortable practice, and his labors and patience seemed about to be rewarded, when he was stricken down in the prime of vigorous and athletic manhood. He acquired a violent cold which developed into acute bronchitis; seeming not to make satisfactory progress, he went to his parents' home, in Sacramento, where, however, he steadily grew worse, and acute nephritis supervening, he finally, after a comparatively short illness, succumbed to the complications of affections, on the morning of December 22, 1896. By his death a hitherto united family loses a kind, affectionate son and brother, the medical profession an honorable, ethical gentleman, his friends a staunch and faithful companion, and the world an honest citizen.

W. R. C., JR.

REVIEWS AND NOTICES.

REFERENCE-BOOK OF PRACTICAL THERAPEUTICS. By various authors. Edited by Frank P. Foster, M.D., editor of the *New York Medical Journal*, and of Foster's Encyclopedic Dictionary, in two volumes, this being Vol I. New York: D. Appleton & Co. pp. 652.

This is a reference book of practical therapeutics, the articles in which have been prepared by various authors and edited by Dr. Foster. It is not to be classed among the text-books on the subject, as it deals but slightly with the physical characters of different drugs, and bestows most attention to their clinical application. The arrangement of the articles is in the alphabetical form usually adopted in encyclopedias, and in addition to this the different remedies are grouped together according to their action. Under the head "cardiac tonics" we find a brief account of such drugs as digitalis and arsenic, while at another page we have these remedies described under their own name. The articles are complete and concise, so as to make the work a very convenient and satisfactory volume for reference purposes. The second volume will be issued at an early date.

A TEXT-BOOK OF MATERIA MEDICA, THERAPEUTICS, AND PHARMACOLOGY. By George Frank Butler, Ph.G., M.D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago, Professor of Materia Medica and Therapeutics, Northwestern University; Woman's Medical School, etc. Philadelphia: W. B. Saunders. pp. 858. Price, $4 net.

There is not anything about this book to specially commend it to the student or practitioner; it certainly cannot be placed on the same plane with such standard works as those of Woods, Brunton, or Ringer, and it has not any particular characteristics to give it preëminence among the second rate books on the subject. The author states that this text-book is "adapted for permanent reference no less than for the requirements of the class-room," and also that "many new and comparatively untried remedies have been omitted, since, while of established efficacy in certain conditions, they are yet too imperfectly known to warrant association with remedial agents bearing the sanction of exhaustive scrutiny." It is rather disappointing that a work "adapted for permanent reference" should fail to mention drugs that have been shown to be "of established efficiency in certain conditions;" such omissions are justified in a quiz-compend, but it is essential to the progress of therapeutics that works of reference should state the known value of all remedies. There are other important omissions; absolutely no reference is made to the use of opium in the treatment of epilepsy, although Flechsig's method of treatment is sufficiently well known to bring this drug into prominence. Probably many faults will be remedied in subsequent editions.

AN AMERICAN TEXT-BOOK OF PHYSIOLOGY. By Henry P. Bowditch, M.D., John G. Curtis, M.D., Henry H. Donaldson, Ph.D., W. H. Howell, Ph.D., M.D., Frederic S. Lee, Ph.D., Warren P. Lombard, M.D., Graham Lusk, Ph.D., W. T. Porter, M.D , Edward T. Reichert, M.D., and Henry Sewall, Ph.D., M.D. Edited by William H. Howell, Ph.D., M.D., Professor of Physiology in the Johns Hopkins University, Baltimore. Fully illustrated. Philadelphia: W. B. Saunders. pp. 1052. Price, cloth, $6. Sheep, $7. Half mor., $7.

This text-book is in so far an innovation, as it is not written by a single author, which older text-books of physiology usually have been, but is the result of the collaboration of ten leading American physiologists, the professors of Harvard, Yale, Johns Hopkins, and of the Universities of Columbia, Chicago, Michigan, Pennsylvania, and Denver, to each of whom that part of the voluminous literature of the modern science of physiology had been assigned, of which he had the most comprehensive knowledge. The work appears to have carefully sifted the results of experimental research in physiology, and to have embodied all recent discoveries of note, so as to serve the student and practitioner of medicine as a reliable source of information in this science. To satisfy the former, who may seek to gain a true knowledge of the subject by study of original works, a reference to the literature, amounting in some parts to a fair bibliography, has been appended in notes at the bottom of each page. The thoroughness which characterizes the presentation of the various subjects treated places the work among the leading, if it does not, indeed, make it the leading scientific text-book of physiology written in the English language. The book is well, though not profusely illustrated, many of the drawings being original; the illustrations accompanying the sections on the central nervous system, and the special senses by Profs. Donaldson, Bowditch, and Sewall are especially fine. The print is large and clear.

THE PHYSICIAN'S VISITING LIST—FORTY-SIXTH YEAR. Philadelphia: P. Blakiston, Son & Co.

The publishers announce that the improvements in "The Physician's Visiting List," for 1896, have met with very general approbation by the profession, the sales of the List for that year showing a marked increase over those of the previous year. For 1897 several minor changes have been made. One that we have found from practical experience in other books to be a marked advantage, is the moving of the column representing Saturday, in each week, one-eighth of an inch to the left. This allows greater space at the fold and enables one to write always on a level page. Pages have been added to the general memoranda and to the cash account, and the List, as now furnished, is more substantially bound than hitherto. The value of any visiting list is best shown by its popularity, and, while there are others in the market, "The Physician's Visiting List" seems to hold all its friends, and to gain many new ones with each successive year.

MEDICAL NEWS.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from December 20, 1896, to January 20, 1897.

The leave of absence granted Captain William L. Kneedler, Assistant Surgeon, by Par. 1, S. O. 47, San Diego Barracks, California, December 20, 1896, is hereby extended twenty-three days. Par. 3, S. O. 158, Dept. of Cal, Dec. 22, 1896.

Leave of absence for one month is granted Major James C. Merrill, Surgeon. Par. 1, S O. 1, Dept. of the Columbia, Jan. 2, 1897.

Major William R Hall, Surgeon, is relieved from duty at Whipple Barracks, Arizona, and ordered to Washington, D. C., for duty.

First Lieutenant Irving W Rand, Assistant Surgeon, relieved from duty at Fort Clark, Texas, and ordered to Fort Huachuca, Arizona, for duty.

First Lieutenant Alexander S. Porter, Assistant Surgeon, relieved from duty at Fort Huachuca and ordered to Whipple Barracks, Arizona.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from December 20 to January 20, 1896

W. H. H. Hutton, Surgeon, granted leave of absence for five days from Jan. 22, 1897; to proceed from Detroit, Mich., to San Francisco Cal., in time to arrive there Feb. 25, 1897, and assume command of service.

John Godfrey, Surgeon, when relieved from duty at San Francisco, Cal., on or about Feb. 25, 1897, to proceed to Detroit, Mich., and assume command of service.

ITEMS.

Dr. C E. Farnum has removed from 703 Market street to Room 35, Parrott Building, San Francisco, Cal.

Dr. J. H. Graves has removed from 1816 Post street to 1300½ Valencia street, San Francisco, Cal.

The Fifth Annual Meeting of the Tri-State Medical Society of Iowa, Illinois and Missouri, will be held in St. Louis, April 6th, 7th and 8th, 1897. A large number of valuable papers will be read. Dr. Joseph Price, of Philadelphia, will hold the Surgical Clinic, Dr. James T Whittaker, of Cincinnati, the Medical Clinic, and Dr. Dudley Reynolds the Ophthalmic Clinic. Dr. G. Frank Lydston, of Chicago, will entertain the members with an original story during one of the evening sessions.